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ABSTRACT

The House Subcommittee on Select Education asked the General Accounting Office (GAO) to study the condition of information on education in the United States during selected years between 1973 and 1986. The resulting report covers three areas: (1) the nature and amount of federally sponsored information on education; (2) the quality of such information; and (3) factors influencing production and quality of the information. The study consisted of a review of information-gathering activities of the three principal units of the Department of Education, namely, the National Institute of Education; the National Center for Education Statistics; and the Office of Planning, Budget, and Evaluation. The GAO also examined the quality of information through analysis of three statistical programs, namely, the National Assessment of Educational Progress, the Common Core of Data for Elementary and Secondary Education, and the Fast Response Survey System. Performance assessments concentrated on relevance, timeliness, technical adequacy, and impact. Results indicate a decline in federally sponsored research and in statistical and evaluative information on education; a shift away from collection of new data to service-oriented activities; and a trend toward contract awards to institutions rather than field-related endeavors. Agency comments and recommendations are outlined. (TJH)

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United States General Accounting Office

GAO

Report to the Chairman, Subcommittee on Select Education, Committee on Education and Labor, House of Representatives

November 1987

EDUCATION INFORMATION

Changes in Funds and Priorities Have Affected Production and Quality

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
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United States
General Accounting Office
Washington, D.C. 20548

Program Evaluation and
Methodology Division

B-226398

November 4, 1987

The Honorable Major Owens
Chairman, Subcommittee on Select Education
Committee on Education and Labor
House of Representatives

Dear Mr. Chairman:

At the Subcommittee's request, we examined the condition of information on education in the United States. As was agreed with your office, we focused on three features of information stemming from federally supported educational research, statistics, and evaluation. First, we examined the production of selected types of educational information from the early 1970's to 1986. Specifically, we looked at the changes in information activities, priorities, and participants. Second, we reviewed three statistical programs—the National Assessment of Educational Progress, Common Core of Data for elementary and secondary education, and Fast Response Survey System—to determine how the quality of these programs has changed. Third, we identified key factors influencing information production and quality.

As arranged with your office, unless you publicly announce the contents of this report earlier, we plan no further distribution of it until 30 days from the date of the report. At that time, we will send copies to the Department of Education and others who are interested and make copies available to others upon request.

Sincerely yours,

Eleanor Chelimsky
Director

Executive Summary

Purpose

Although education in this country is a responsibility of the states, the federal government spends nearly $20 billion annually to support all levels of education. Further, since the Congress first authorized a noncabinet department of education in 1867, the federal government has maintained a strong interest in who is getting educated and what they are learning. The Congress and the education community have, however, expressed concern about how well the department is carrying out its information-gathering function. In light of these concerns, the House Subcommittee on Select Education asked GAO to study the condition of information on education in the United States. This report addresses three questions: (1) What federally sponsored information on education is being produced and how has it changed? (2) What is the quality of the information and how has the quality changed? (3) What factors influence the production and quality of information?

Background

GAO examined information production by reviewing the information-gathering activities of the three principal units in the Department of Education responsible for education information during the time of our review: the National Institute of Education (NIE), the National Center for Education Statistics (NCES), and the Office of Planning, Budget, and Evaluation (OPBE). GAO examined the quality of information through analyses of three statistical programs: the National Assessment of Educational Progress, the Common Core of Data for elementary and secondary education, and the Fast Response Survey System. GAO assessed performance in terms of four indicators of quality: relevance, timeliness, technical adequacy, and impact. From the results of these reviews, together with an examination of relevant documents and interviews, GAO identified factors influencing information production and quality. GAO's review covers selected years between 1973 and 1986.

Results in Brief

During the past decade, the production of federally sponsored research, statistical, and evaluative information on education has declined notably. Research and evaluation activities were hardest hit in terms of reductions in number of awards between 1980 and 1985. Research activities shifted away from the collection of new data to service-oriented activities such as dissemination, so much so that the availability of up-to-date information to disseminate to teachers and other practitioners may be threatened. Further, the new data collection efforts that were undertaken during the period of this review increasingly became more narrowly focused and the scope of investigation was also restricted by increased use of contracts awarded to institutions rather than field-initi-

ated grants. While some high-quality statistical information was being produced, the quality was variable. In two programs, quality was maintained or improved on some dimensions but in the Common Core of Data, data quality problems have persisted for several decades. The major influence on information production was severe reductions in funding levels. Activities that did not carry congressional mandates were most vulnerable to funding declines and changes in priorities, which also were linked to rapid changes in leadership. Expert review of specific information-gathering activities had a positive influence on quality in some instances. Results were clearest when several of these factors coexisted and worked in the same direction.

Principal Findings

Information Production

The number of grants and contracts awarded for research decreased 65 percent from 476 in 1980 to 168 in 1985. The number of evaluation contracts peaked at 119 in 1980 and progressively dropped 79 percent to 25 in 1985. Statistical surveys, planned or conducted, fell 31 percent between 1980 and 1983 from 55 to 38. The intervals between data collections increased and technical support to the states for data collection was sharply reduced. (See pages 20-24.)

The information that was produced by awards also changed. Sixty-five percent of NIE's 1980 awards but only 11 percent of the 1985 awards were for new data collection. Awards for service activities such as disseminating information and providing expert testimony in civil rights cases increased from 35 percent to 89 percent of all awards. Fewer educational areas were investigated in 1985 than in 1980 through research grants. In 1980, for example, 56 of 293 awards for new data collection went toward studies of special populations such as minorities and women. In 1985, there were five such studies. Some areas such as learning in nonschool settings and areas identified as "school problems" (including such issues as dropouts and delinquency) received no new data collection funds at all in 1985; in 1980, there were 33 awards. (See pages 31-36.)

Further, those who carried out the work shifted. The proportion of research awards made to department-sponsored institutions (for example, laboratories and national centers) increased substantially from 1980

to 1985. In 1980, institutions received 25 percent of the awards in three major program areas, compared to 56 percent in 1985. In 1980, 23 percent of NIE's awards were made through contracts; in 1985, 86 percent. OPBE funded nearly all 1985 evaluations through competitively awarded contracts; in 1980, the award process was more diverse. Thus information-gathering was increasingly more likely to be prescribed by the agency than to have been proposed from the field. (See pages 36-38.)

Quality of Statistical Programs

A review of relevance, timeliness, technical adequacy, and impact shows that quality varied. The National Assessment of Educational Progress received generally high marks, although efforts to optimize one aspect of quality were associated with losses in other dimensions. The Fast Response Survey System received relatively high marks on relevance and medium ratings on technical adequacy and timeliness. However, the Common Core of Data, adequate in some respects, was generally poor in its quality of information. Many problems—some of which had been identified by others several decades earlier—remain. (See chapter 3.)

Influences on Information Production and Quality

Support for research has decreased since the early 1970's by more than 70 percent in constant dollars, despite the fact that the federal investment in education increased by 38 percent and federal support for research in general increased by about 4 percent in constant dollars between 1980 and 1984. Funding for statistics and evaluation also declined more than in these areas for the government in general. The patterns of fiscal declines in research, evaluation, and statistical activity corresponded to reductions in information production. (See pages 68-72.)

Although all information-gathering activities were affected by budget constraints, congressionally mandated activities received smaller reductions and thereby consumed an increasing share of available resources. Activities that were not required by law were vulnerable to changes in priorities, funding, and policies. Rapid turnover of top leadership, especially in NIE, was associated with decisions not to fund areas of research initiated under other directors. (See pages 76-78 and 83.)

In the three statistical programs, relevance was increased by adding data elements, tailoring data collection to the needs of specific requesters, and making dissemination flexible. Timeliness was improved by releasing data early and diversifying their formats. Technical adequacy was higher for surveys than for data from state administrative records.

Some information-gathering activities reviewed comprehensively by technical experts improved in quality. (See pages 60-66.)

Recommendations

GAO does not present recommendations in this report.

Agency Comments

The Department of Education generally agreed with GAO's findings, stating that the report will perform a valuable function in documenting a long-term decline in resources for educational information. However, the department expressed three concerns about the report. First, citing the many organizational changes initiated since 1985, the department believed GAO's analyses did not reflect the current situation. Second, it questioned GAO's assessment of shifts in priorities, stating that greater emphasis on dissemination represented a positive step, changes in leadership did not affect research priorities, and almost all important areas were being investigated through a variety of strategies. Third, the department took issue with GAO's analysis of the implications of changes in who is producing information and how it is funded. Department officials also provided detailed descriptions of recent organizational changes, documentation on budgets and activities not covered in GAO's review, and further specific comments. (See appendix IV.)

GAO acknowledges the numerous changes since fiscal year 1986. However, it is too early to determine whether these changes will adequately address the problems identified in this report or the new problems that the changes themselves might create. Empirical assessment of the production and quality of information will be necessary.

With regard to shifts in priorities, GAO maintains that dissemination can remain a critical part of the research process only if the data that are being disseminated are relevant and timely. GAO continues to conclude that changes in leadership did affect priorities and notes that while information is being collected on contemporary problems, the department seems to lack formal mechanisms for identifying emerging issues.

GAO continues to believe that while contracts provide a needed basis for accountability, widespread use of contracts has other, less positive consequences. For example, requests for proposals often specify the scope of work, leaving little flexibility for the imaginative researcher. While GAO commends the department's efforts to restore some of the avenues for new data collection—such as the unsolicited-grants program—current levels of support are dramatically lower than in 1980.

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Abbreviations

CCD	Common Core of Data
CEIS	Committee on Evaluation and Information Systems
CES	Center for Education Statistics
CLD	Center for Leadership Development
ELSEGIS	Elementary and Secondary Education General Information Survey
ERIC	Educational Resources Information Centers
ETS	Educational Testing Service
FEDAC	Federal Education Data Acquisition Council
FRSS	Fast Response Survey System
GAO	U.S. General Accounting Office
NAEP	National Assessment of Educational Progress
NAEPIRS	National Assessment of Educational Progress Information Retrieval System
NAS	National Academy of Sciences
NCER	National Council on Educational Research
NCES	National Center for Education Statistics
NIE	National Institute of Education
OERI	Office of Educational Research and Improvement
OMB	Office of Management and Budget
OPBE	Office of Planning, Budget, and Evaluation
NVEDS	National Vocational Education Data System
TIERS	Title I Evaluation and Reporting System

Introduction

Although education is a responsibility of the states, there is a strong and abiding national interest in who is getting educated and what they are learning. Since 1867, the Congress has authorized the Department of Education to obtain information on the condition of education for purposes of identifying emerging needs, determining how well programs are working, and promoting educational improvement. At the request of the Subcommittee on Select Education of the House Committee on Education and Labor, we examined the condition of this information about education: that is, how and how well the information-gathering function has been carried out and what more could be done to improve the production and quality of information.

The Federal Role in Education Information

Although the federal government currently spends nearly $20 billion annually to support education, its earliest task was gathering information. Federal involvement in education information dates back to 1867, when the Congress created a noncabinet Department of Education.[1] The department's initial mandate was to gather statistics on U.S. education. Although the federal role in education has changed during the many years since the department's inception, information-gathering has remained one of its important functions. Information-gathering units have expanded their scope beyond gathering statistics. Their work now includes, for example, the sponsorship of research and evaluating the educational programs administered by the Department of Education as well as technical assistance and dissemination.

Roles and Responsibilities of Information-Producing Units

During the 1970's, the responsibility for research, statistics, and evaluation were assigned to the National Institute of Education (NIE), the National Center for Education Statistics (NCES), and the Office of Planning, Budget, and Evaluation (OPBE), respectively. There was some overlap of activities (for example, NIE and OPBE have conducted evaluations of programs), but these units have had fairly distinct information-gathering roles within the department. Their origins and missions are

[1] Although the Department of Education was not made a cabinet department until 1979, we refer to it as the Department of Education.

described below. We also highlight how these missions have changed over time.[2]

The National Institute of Education

The National Institute of Education was originally created in the Education Amendments of 1972. In establishing NIE, the Congress declared that to provide high quality education, "far more dependable knowledge about the processes of learning and education than now exists or can be expected from present research and experimentation" was required. The legislation charged NIE with the responsibility of building "an effective educational research and development system."

NIE's mission as given in the public law was fairly general, leaving considerable flexibility in the development of the research function and specific areas of focus to its director and policymaking board, the National Council on Educational Research (NCER).[3] In subsequent years, the Congress used legislation to indicate its priorities for the National Institute of Education. For example, listed among the priorities in the Educational Amendments of 1976 were improving student achievement in the basic skills, including reading and mathematics; improving the ability of schools to meet their responsibilities to provide equal educational opportunities, including students who are socially, economically, or educationally disadvantaged; and improving dissemination of the results of, and knowledge gained from, educational research and development. In addition to providing priority areas during the 1970's, the

[2]In the department's October 1985 reorganization, NIE and NCES were discontinued as separate agencies and all their functions and activities were assigned to the five operating units of the Office of Educational Research and Improvement (OERI). (The five units are Office of Research, Center for Education Statistics (CES), Programs for the Improvement of Practice, Information Services, and Library Programs.) The Center for Education Statistics performs most of the former responsibilities of NCES. And although some NIE responsibilities have been transferred to the new units, the Office of Research now carries out the activities of NIE that we discuss in this report. Because our review covers the period prior to the departmental reorganization, we refer to each unit by its name applicable during that period—that is, NIE, NCES, and OPBE.

[3]Since the reorganization, NCER has been renamed the National Advisory Council on Educational Research and Improvement. Although its purview has been expanded to include all activities in the Office of Educational Research and Improvement, its role has been changed from policy to advisory.

Congress increasingly required NIE to conduct specific studies, evaluations, and activities (for example, support for regional educational laboratories, national research centers, and the National Assessment of Educational Progress).[4]

The National Center for Education Statistics

The statistical activities that had been performed in the department since its early days were organized into the National Center for Education Statistics in 1974 (Public Law 93-380).[5] As stated in the Education Amendments of 1974,

> "the purpose of the Center shall be to collect and disseminate statistics and other data related to education in the United States and in other nations. The Center shall . . . collect, collate, and, from time to time, report full and complete statistics on the condition of education in the United States; conduct and publish reports on specialized analyses of the meaning and significance of such statistics; . . . [and] review and report on education activities in foreign countries."

NCES was authorized to produce statistical data, but, in general, the type of information that was to be collected, and when and how it was to be collected were not initially specified by the Congress. Over time, the Congress has amended the mission of NCES by adding requirements for assistance to state and local education agencies to improve their statistical and data collection activities. Several special and recurring surveys were also mandated at various points over the past decade (for example, a survey of institutions of higher education and teacher demand-and-shortage studies).

Office of Planning, Budget, and Evaluation

In 1970, the Office of Planning, Budget, and Evaluation became the department's central office for program evaluation activities. Although OPBE is not authorized by legislation, its responsibilities have included

[4]The laboratories conduct studies, disseminate research findings, and provide technical assistance to educational institutions in their assigned geographic regions; the national centers conduct research on the topics or issues they have received awards to study (for example, teaching, reading, and vocational education). Some national centers have been supported by NIE discretionary funds. Most of the support for the centers and all the support for the laboratories has been congressionally mandated, however. We refer to them collectively as the laboratories and centers. For some analyses, however, we discuss the mandated and discretionary laboratories and centers separately. In the recent reorganization, some mandated activities including the laboratories and the educational information dissemination centers were transferred from NIE to a newly created unit responsible for the improvement of educational practice. We discuss laboratories and centers further in chapter 2.

[5]NCES was made a statutory entity in 1974, and it was established administratively in January 1965 as a staff office reporting directly to the commissioner of education.

"implementation of Congressional mandates, conduct of program impact studies, meeting information needs of OE [Office of Education] program managers, provision of technical assistance in evaluation to the field, studies to identify effective program services, and practices or projects for improvement of program operations and for dissemination to the field."

Although a number of evaluations are carried out in other department units, OPBE is considered the central location for departmental evaluations. In addition to its earlier roles and responsibilities, OPBE currently reviews proposed legislation, regulations, and administrative orders or public announcements that affect policy, program plans, and budgets. OPBE has developed and monitored the secretary's policy agenda, although this was last done in 1983. OPBE brings together the results of research, analysis, planning, implementation, and evaluation activities of all the principal offices of the department.

Although evaluation is clearly OPBE's charge, its roles and responsibilities have shifted in recent years. In an August 20, 1986, memo, the deputy undersecretary for planning, budget, and evaluation established procedures for planning and coordinating evaluation studies within the department. In implementing this policy, the memo outlined three activities, including the preparation of an inventory of all current evaluation studies, the preparation of an evaluation plan for future studies, and the review of work statements for procurements to ensure policy relevance and methodological adequacy. OPBE approval is required for all evaluation plans and work statements.

Concern Over Department Performance

Concern over how the department is performing its information mission goes back to 1869. Indeed, the first commissioner of education resigned under pressure after roughly 3 years in office for failing to provide quality information quickly enough. More recently, criticism has been expressed in congressional hearings and conference reports. At the request of various congressional committees, GAO has in the past investigated such aspects of the department's performance as its evaluation of compensatory education programs, its management of the National Assessment of Educational Progress (NAEP), and its adherence to requirements of impartiality in awarding research grants and contracts. While there is general agreement that support for information-gathering is an appropriate and necessary federal role, there also has been continued unease with the department's performance of its information-gathering functions.

Objectives, Scope, and Methodology

We addressed the Subcommittee's concern about the condition of education information by organizing our review around three questions.

1. What federally sponsored information on education is being produced and how has it changed over time?

2. What is the quality of the information and how has quality changed over time?

3. What factors influence information production and quality?

In answering these questions, we focused on research, statistical, and evaluative information. As described above, our data collection efforts were limited to three organizations—the National Institute of Education, the National Center for Education Statistics, and the Office of Planning, Budget, and Evaluation.

While information is also gathered by numerous other units within the department (the Office of Civil Rights and the Office of Special Education programs, among others), the organizations we focused on are responsible for the majority of the information-producing activities.

We looked at information that was produced from the early 1970's to 1985. We chose these years because they allowed us to compare information production in the early days of each organization with information production in more recent years. (Although 1985 was the last year for which reasonably complete information was available, in a few analyses we were also able to review 1986 activities.) In addition, the longitudinal perspective allowed us to look at the information production process, permitting us to follow some information activities from implementation to use.

Study Plan

Our plan for data collection had several components. First, to describe the information that was produced and to document changes in that information over time, we reviewed the activities the organizations had been involved in since the early 1970's. We attempted to identify information about contract and grant awards and in-house work the organizations had performed. In particular, we analyzed agency publications and data on awards. We used number and type of awards for OPBE and NIE and number and type of surveys for NCES as indicators of information that was produced through the department.

These are not direct measures of the information that was produced. However, given the time it takes to complete research and the many possible channels of its release, it is difficult to measure information output adequately. We believe that measures of new and ongoing work serve as appropriate indicators of information production. Where possible, we also examined published reports.

To answer the question on quality, we reviewed the available literature on quality and we developed case examples of three major information-gathering activities. For each case, we drew on our own analyses and on prior reviews by experts as assessments of the activity's technical quality. Since the Subcommittee was interested in the effects of different ways of requesting information, such as the use of mandates and discretionary funds, we deliberately chose cases that represented a variety of such requests.

To examine factors affecting information production and quality, we brought together findings from the three case examples, other case analyses, interviews with agency officials, and analyses of agency documents. We analyzed the individual budgets and the budget of the Department of Education as a whole. We obtained these data from agency officials and publications. We also drew on the literature of each of the organizations and on education information, information quality, and request strategies. Table 1.1 links our study questions with our data collection plan.

Table 1.1: Our Study Questions and Data We Collected for Them

Question	Source
1. What federally sponsored information on education is being produced and how has it changed over time?	— Agency publications and data
2. What is the quality of the information and how has quality changed over time?	— Case studies — Literature on quality
3. What factors influence information production and quality?	— Budgets — Case studies and other examples — Interviews with agency officials and agency documents — Primary and secondary literature on the agency, education data and their quality, and request strategies

Obtaining Information on Education

We were interested in activities from the early 1970's to 1985 and, at the minimum, we sought to identify who (individuals versus institutions) performed each activity and starting and completion dates, areas

of concern, and funding levels. None of the organizations had an information management system that could give us complete information. Complete data were available for a few years at most; for other years, and especially before 1980, the data were often incomplete or missing altogether.

Research

In 1980, the National Institute of Education developed an on-line system for monitoring its activities. This system lists basic data, including the time for the project, its funding, the contractor, and its topics. Since 1980, the National Council on Educational Research has made the information from this on-line system available in its annual report. However, until 1985, the list did not include the projects carried out under the grants for the regional laboratories and national centers, preventing the detailed public examination of this important aspect of the work of NIE. A special request was necessary to obtain this information.

For information on activities prior to 1980, NIE put together a historical data set that attempts to list the same items as given for its post-1980 activities. However, the data set is not complete and cannot be relied on as the sole source of activities prior to 1980. Publications list the department's research activities in the 1970's, but these were not prepared for every year and are not easily available to other agencies or the general public.

Statistics

The National Center for Education Statistics could not provide us with a comparable list of information activities. Irregularly, it has published descriptions of its statistical program and plans. These are not available for 1984 to 1986, but in earlier years descriptions were provided in a companion volume to The Condition of Education. NCES does, however, publish data from its statistical data series in its annual reports, The Digest of Education Statistics, Projections of Education Statistics, and The Condition of Education, but only selected portions of the data collected are reported. It may use only data from a few of the series and may mix these with data from other organizations. In addition, changes in the data sets cannot be determined from these documents. We relied upon selected publications and NCES staff for this kind of information.

Evaluation

Contract information can be tracked with the Annual Evaluation Report, mandated by the Congress (sections 417(a) and (b) of the General Education Provisions Act of 1968). What is included in the report

has changed, however, so it was not possible to obtain comparable data across the 1970's to the present. It was not until 1975 that the report provided a record of current and recently completed activities that included titles, funding history by fiscal year, contract numbers, project monitors in the department, information on contractors, and starting and ending dates. In 1982, the department decided not to publish this comprehensive record of current and recent projects in the Annual Evaluation Report, stating that a streamlined report including only current projects would be more useful to the Congress and the department. Because this more comprehensive report has been discontinued and because there was no computerized information management system as in NIE, we relied on department staff and project files for data on project history.

Thus, information on the awards that have been made and funds that have been allocated is not readily accessible, even to those who spend a great deal of time and energy to obtain it. For others without these resources but with an interest in the information that has been produced and the way education information funds have been spent, a comprehensive picture is nearly impossible to obtain. Our findings are based on the best available but nonetheless limited evidence. The analyses focus on the years for which our data are the most complete.

Assessing Quality

The longitudinal case examples serve two purposes. First, we summarize the current status of three types of statistical information with respect to their quality and changes in the level of quality over time. Second, we explore factors that may have contributed to variation in quality and to change. We also draw on additional examples pertaining to evaluation research and education to probe whether these findings can be generalized to other types of information-gathering.

Definition of Quality

Our assessment focuses on four dimensions of quality: (1) relevance (Is the information useful for answering the types of questions posed by educational policymakers or other users?), (2) timeliness (Is the information collected and reported when it is needed?), (3) technical adequacy (Is the information credible, free of egregious errors, and adequately reported?), and (4) impact (Has the information influenced decisions or actions relevant to educational processes?). Since specific definitions of these dimensions depend on the expected uses of the data, the nature of the information that is produced, and the data-gathering

mechanisms that are employed, we describe each one in detail for each individual case.

Overview of the Case Examples

We examined aspects of quality associated with three mechanisms for obtaining statistical information on the condition of education. Our first case is on the National Assessment of Educational Progress. NAEP began as a privately funded survey and was later mandated by the Congress. The second case represents a traditional statistical system in which a census is routinely taken and reported. The specific illustration of this type of data system was first implemented as the Elementary and Secondary Education General Information Survey (ELSEGIS) and has since undergone several changes in name and scope. It is now referred to as the Common Core of Data (CCD). Unlike NAEP, this system does not have a particular congressional mandate; rather, authority for this activity is derived from the general mission of NCES. Our third case is on the Fast Response Survey System (FRSS). FRSS was developed in 1974 in an effort to provide timely information on specific policy issues. Unlike CCD and NAEP, it represents a series of unique surveys that vary in policy content and population coverage. Table 1.2 summarizes the major differences between these three data-gathering activities. These particular examples differ according to the origin of the activity, the collection method, periodicity (the frequency with which the data are collected), the basis of funding, and the topic area.

In choosing these particular cases, we considered two factors. First, each case represents an established method for gathering information. There-

Table 1.2: General Attributes of the Three Case Illustrations

Case	Collection method	Authority	Frequency of data collection	Funding	Topic area
National Assessment of Educational Progress	National survey	Congressional mandate	Periodic with varying content	Grant	Achievement, student characteristics and attitudes, and educational environment
Common Core of Data	Census	Agency mission	Annual	Cost sharing	Local school districts and state agency characteristics; student, staff, and resources
Fast Response Survey System	Small-scale surveys	Discretionary funds	Periodic, based on demand	Contract	Varies

fore, it is possible to examine changes in quality over time and to identify factors that plausibly influence increases or decreases in quality. Second, the methods or procedures we examined represent three of the most common ways in which statistical information has been collected.

Study Limitations and Strengths

Three limitations to our report should be noted. First, the findings are based only on the information that was accessible in agency documents, which were limited.

Second, the case examples do not represent all education information; they exclude, for example, information from evaluation and research. However, they include major initiatives that used or are using a good deal of the department's resources. In addition, they specifically represent particular kinds of data collection strategies and serve as examples of the kind of work that can be accomplished, given a particular set of conditions (see table 1.2).

Third, given limited time and resources, we could not do our own full assessment of the technical quality of the data. Instead, we drew on the writings of reviewers of education information activities and on the help of outside experts. We supplemented these with our own judgments on such matters as sample selection and analytic techniques.

Our report has strengths as well. First, we looked at three kinds of information—research, statistics, and evaluation—in three different organizations—NIE, NCES, and OPBE. It is rare that such an approach is taken; the focus is more typically on one kind of information (such as statistics) or one type of information activity (such as a particular data set). Our approach allowed us a more complete look at the status of federally sponsored education information.

Second, our longitudinal approach allowed us to look at changes in information activities over time and to track factors associated with periods of high and low activity.

Third, while case studies did not give us a representative sample of information activities, they did allow us to look in-depth at some important statistical series. We were able to look at the origins of these series, the request strategy, implementation factors associated with particular negative or positive outcomes, the different components of quality, and critiques of the work.

Chapter 2

The Production of Information

Determining what information is produced and how it has changed over time is difficult. The data we found show, however, that federally sponsored research and statistical and evaluative information on education has been declining during the past decade. Research and evaluation activities were hardest hit in terms of reductions in awards between 1980 and 1985, showing overall declines of 65 and 79 percent, respectively. For statistics, the number of planned and ongoing surveys in three of four education areas declined by 31 to 42 percent between 1980 and 1983. From 1974 to 1983, the interval between statistical data collections also changed, the time between collections increasing during this period.

We also found changes in priorities. For research, there was a shift away from new data production to other activities such as dissemination of results and the provision of expert witnesses in civil rights cases. For statistics, the shift was to the maintenance of core surveys. For evaluation, the shift was to smaller management studies. Many areas are no longer being studied, at least with respect to federal support for new inquiry, and they have not been replaced by other areas. New data collection appears to be particularly out of step with areas education experts identify as being in need of educational reform. Finally, there has been a shift in who is producing information, as shown, for example, by the shift from support for individual researchers to support for laboratories and centers in NIE and the trend away from grants to contracts.

Awards for Information Activities

We found notable decreases in the number of awards across all three units. NCES reduced many of its activities. In NIE and OPBE, awards for activities stood at less than one third and one quarter of their 1980 levels, respectively.

Research

We examined the complete set of research activities in NIE from 1980 to 1985 only—all years for which adequate data were available. The activities are those listed in NCER's annual reports. In this discussion, we separate awards made to the mandated regional laboratories and national centers from all other grants and contracts (including those made in the three program areas, in the unsolicited proposal program, and in other units such as the office of the director).

The number of awards from 1980 to 1985, as shown in table 2.1, declined from 476 in 1980 to 122 in 1984; they increased to 168 in 1985.

Overall, from 1980 to 1985, the number of awards for information activities declined 65 percent. Except for "other" awards (primarily those from the office of the director and the regional laboratories and national centers), all the program areas showed a marked decline in the number of awards from 1980 to 1985. The change from 1980 to 1985 was the most dramatic for the unsolicited proposal program because it was cut completely. The 84-percent decrease for educational policy and organization was nearly as deep. Teaching and learning and the dissemination and improvement of practice declined 54 and 70 percent, respectively.

Table 2.1: Number of National Institute of Education Awards for Fiscal Years 1980-85 by Program Funding Area

Area	1980	1981	1982	1983	1984	1985
Teaching and learning[a]	185	118	38	49	33	85
Educational policy and organization	93	61	24	37	22	15
Dissemination and improvement of practice	107	74	59	49	37	32
Unsolicited proposals	58	48	35	22	0	0
Educational laboratories and national centers	26	26	25	27	23	18
Other[b]	7	3	4	8	7	18
Total	**476**	**330**	**185**	**192**	**122**	**168**

[a]Includes centers that were not part of the regional laboratory and center network. These were the centers on reading, teaching, and second language learning.

[b]Covers miscellaneous awards not identified under any of the program funding areas listed, such as interagency agreements, awards made by the office of the director, and an award made in 1983 for the National Council on Educational Research.

Source: National Council on Educational Research annual reports for fiscal years 1980 to 1985.

Statistics

To obtain an overview of basic statistical data-gathering within NCES, we relied on various reports describing NCES programs and plans.[1] In this discussion, we focus on the portfolio of information-gathering activities in the four fundamental education domains—elementary and secondary education, higher education, adult and vocational education, and library resources—and specialized surveys (the National Longitudinal Survey and Fast Response Survey System). We consider other related activities in support of these efforts (such as quality control) separately.

As seen in table 2.2, the total number of surveys NCES planned and conducted grew by 49 percent (from 37 surveys to 55) between 1974 and

[1]National Center for Education Statistics, The Condition of Education, Part 2, Programs and Plans (Washington, D.C.: U.S. Government Printing Office, 1980-83); Projects, Products, and Services (Washington, D.C.: U.S. Government Printing Office, 1974 and 1976); and Fast Response Survey System Reports, numbers 11-17 (Washington, D.C.: U.S. Government Printing Office, 1980-84).

1980. New surveys in adult and vocational education and in library resources accounted for most of this increase. The amount of data collection (as measured by the number of ongoing and planned surveys) in elementary and secondary education and higher education remained roughly constant. Between 1980 and 1983, the last year for which data permitting this analysis were available, data collection activity declined by 31 percent, returning to its 1974 aggregate level. In three of the four major education areas, the number of planned and ongoing surveys declined by 31 to 42 percent in this same period.

Table 2.2: Number of National Center for Educational Statistics Surveys for Selected Years 1974-83[a]

Area[b]	1974	1976	1980	1981	1982	1983
Primary, elementary, and secondary education	12	18	12	9	9	7
Postsecondary education	9	10	8	7	8	8
Adult and vocational education	9	11	14	15	12	9
Library resources	6	13	16	13	10	11
National Longitudinal Survey	1	1	2	2	2	2
Fast Response Survey System	0	2	3	1	3	1
Total	**37**	**55**	**55**	**47**	**44**	**38**

[a]Excludes the National Assessment of Educational Progress. (NAEP was an activity of NCES in 1974 and 1976 and was transferred to NIE in 1978; no other NCES responsibility changed this way.)

[b]Time did not permit our verifying information the department provided in response to a draft of this report. Therefore, we have not included the analyses in our tables or discussion. The Department of Education reported data for 1984-85, as follows: primary, elementary, and secondary, 10 (1984), 8 (1985); postsecondary, 8 (1984), 6 (1985); adult and vocational, 0 (1984 and 1985); library, 1 (1984 and 1985); Fast Response Survey System, 3 (1984 and 1985).

Source: Department of Education data for 1984 and 1985; National Center for Education Statistics, Projects, Products, and Services (Washington, D.C.: U.S. Government Printing Office, 1974 and 1976); The Condition of Education, part 2, Programs and Plans (Washington, D.C.: U.S. Government Printing Office, 1980-83); and Fast Response Survey System Reports, numbers 1-17 (Washington, D.C.: U.S. Government Printing Office, 1980-84).

We also examined the frequency of data collection—that is, periodicity, or the intervals between time points when data are collected. As table 2.3 shows, from 1976 to 1980, scheduled periodic surveys increased and both annual and occasional one-time surveys decreased. Between 1980 and 1983, the percentage of periodic surveys declined to the 1974 levels. The result of these changes over 9 years was a 20-percent reduction of annual surveys (which permit detailed analysis of trends), an 83-percent increase in occasional one-time surveys, and little change in periodic surveys.

Table 2.3: Schedule for the National Center for Education Statistics Data Collection for Selected Years 1974-83[a]

Year	No. of surveys	Percentage of surveys		
		Annual	Periodic	Occasional one time
1974[b]	37	41%	41%	16%
1976	55	31	35	35
1980	55	27	49	24
1981	47	36	40	23
1982	44	30	43	27
1983	38	32	39	29

[a]Time did not permit our verifying information the department provided in a response to a draft of the report. Therefore, we have not included the analyses in our tables or discussion. The Department of Education reported data for 1984-85, as follows: number of surveys, 26 (1984), 20 (1985); percent annual, 42 (1984), 55 (1985); percent periodic, 35 (1984), 25 (1985); percent occasional one time, 23 (1984), 20 (1985).

[b]Periodicity could not be determined for one survey in 1974.

Source: Department of Education data for 1984 and 1985; National Center for Education Statistics, Projects, Products, and Services (Washington, D.C.: U.S. Government Printing Office, 1974 and 1976); The Condition of Education, part 2, Programs and Plans (Washington, D.C.: U.S. Government Printing Office, 1980-83); and Fast Response Survey System Reports, numbers 1-17 (Washington, D.C.: U.S. Government Printing Office, 1980-84).

Evaluation

Contract activities for the Office of Planning, Budget, and Evaluation from 1975 to 1985 are presented in table 2.4. The activities shown here were ongoing or received funding during the fiscal year. The high level of activity that began late in the 1970's (80 or more awards annually) peaked in 1980 and began to drop in 1981, leveling off to 25-28 activities annually. Overall, the decline from 1975 to 1985 was 73 percent. From 1980 to 1985, the decline was 79 percent.

Table 2.4: Number of Office of Planning, Budget, and Evaluation Awards for Fiscal Years 1975-85 by Program Funding Area[a]

Area	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985
Elementary and secondary education	28	53	61	53	56	75	47	39	12	13	13
Postsecondary	26	21	26	33	11	19	12	8	8	4	3
Occupational, handicapped, and developmental	8	5	5	23	14	18	13	6	1	4	4
Program assessments	•	•	•	•	•	4	4	2	•	•	•
Adult and vocational education	11	8	8	•	•	•	•	•	•	•	1
Libraries and education technology	2	3	5	•	•	•	•	•	•	•	•
Miscellaneous	18	16	5	4	3	3	1	2	7	6	4
Total	**93**	**106**	**110**	**113**	**84**	**119**	**77**	**57**	**28**	**27**	**25**

[a]Awards were ongoing or had funds obligated in the year of the report; empty cells denote the absence of data in a particular category for a particular year. From 1983 to 1985, awards were listed differently than in previous years. These awards were recorded for crossyear comparisons based on information provided in the annual evaluation reports. After 1977, awards in the occupational, handicapped, developmental, vocational, and adult education categories were combined.

Source: U.S. Department of Education, Office of Planning, Budget, and Evaluation, Annual Evaluation Report (Washington, D.C.: U.S. Government Printing Office, 1975-85).

Because of a change in reporting during our period of study, we had to reclassify studies appearing in 1983 through 1985 according to the earlier program designations. With this reclassification, we could look across areas from 1975. Within elementary and secondary education and postsecondary education programs, we see declines of 54 and 88 percent, respectively, in the awards from 1975 to 1985. The biggest overall decrease followed the passage of block grant legislation, which affected many of the elementary and secondary education programs that had previously received the bulk of the evaluation support and review.[2]

Summary

When considered in total, the production of information has declined dramatically during the past decade. We did not find a substitution of one kind of information for another. Rather, by 1985 there were fewer research, statistical, and evaluation activities.

[2]In 1981, the Congress passed the Omnibus Budget Reconciliation Act (Public Law 97-35), consolidating 80 federal categorical programs into nine block grants to the states: 38 categorical grants for education were converted under chapter 2 of the Education Consolidation and Improvement Act of 1981. This act eliminated other reporting requirements and evaluation activities, and legislative set-asides for evaluations of five of the programs that were folded into the chapter 2 block grant were rescinded.

Education Information Priorities

In addition to the general transition in recent years to fewer awards for information, the data on research, statistics, and evaluation suggest that the major information-producers have made changes in priorities in recent years, shifting away from the production of new data, and in the areas of study.

Shift Away From New Data Production

Research

The National Institute of Education funded a variety of activities every year. For example, it funded dissemination activities (such as those of the 16 Educational Resources Information Centers (ERIC) clearinghouses), demonstration projects, commissioned papers, syntheses of prior research and evaluations, and expert panels to help review applications for awards. In our effort to describe the character of and changes in the department's research function, we looked at the types of activities NIE funded. First, we compared 1980 awards to 1985 awards, excluding laboratory and center awards (which we discuss separately in the next section). Our results appear in table 2.5. A random sample of these awards is listed in tables I.1 and I.2 in appendix I.

Table 2.5: National Institute of Education Awards for 1980 and 1985 by Type of Activity

	Percentage of awards	
Activity[a]	**1980**	**1985**
New data collection	65%	11%
Dissemination	22	43
Other[b]	13	46
Total number of awards	**450**	**157**

[a]Excludes the operation of the mandated laboratories and centers.

[b]Includes planning, development, conferences, and support for experts for proposal reviews.

Source: National Council on Educational Research annual reports for fiscal years 1980 and 1985 and data from the Office of Educational Research and Improvement.

Looking at the distribution of awards across these years, we found a very large shift away from new data collection to other activities. In 1980, 293, or 65 percent, of the total 450 nonlaboratory and noncenter awards were for new data collection. By 1985, this number had shrunk to 17 of 157 awards, or 11 percent of the total.

In absolute terms, activities other than new data collection, such as dissemination, declined. Dissemination awards, for example, dropped from

98 in 1980 to 68 in 1985. In relative terms, however, these other activities received the major share of the institute's nonlaboratory and noncenter awards in 1985. Dissemination increased notably, from 22 percent of all such awards in 1980 to 43 percent in 1985.

"Other" activities also increased notably from 13 percent in 1980 to 46 percent in 1985. The types of "other" activities funded in both years included research syntheses, commissioned papers, study groups, and expert panels. Activities that were awarded funds in 1985 but not in 1980 included the development of technology, computer software, and curricula and the use of expert witnesses to give legal testimony and write depositions for civil rights cases. Types of activities funded in 1980 but not in 1985 included the development of data files, archives, and fellowships. (In commenting on this report, the department claimed that the items under "Other" in table 2.5 (computer software, witnesses in civil rights cases, and so on) were inaccurate, but we coded them directly from OERI's information system and have not deleted them, as the department suggests.)

Laboratories and Centers Activities

We examined activities involving new information collection versus dissemination-related and other work for the regional laboratories and national centers. In the entries for the NIE on-line computer system, laboratories and centers report the percentage of the costs of specific projects devoted to basic and applied research, dissemination, and other activities. Thus, we could analyze the resources placed in each area across projects. Our results are shown in table 2.6. The laboratories have historically been charged with conducting regionally relevant work and with translating research into practice. The centers, although charged with the creation of new knowledge, have also been responsible, historically, for some dissemination and efforts to improve practice.

As table 2.6 shows, the laboratories were putting proportionately less money into new data collection in 1985 than in 1980, a decline from 34 percent to 24 percent of the total awards. The proportion of resources allocated to dissemination increased sharply, from 29 percent in 1980 to 41 percent in 1985. The centers continued to allocate more than half their resources to new data collection; however, dissemination increased, from 12 percent in 1980 to 21 percent in 1985.

The aggregate figures mask substantial variability in the activities of the laboratories and centers projects. Looking at the activities associated with projects within each laboratory, we find that 67 percent of all labo-

Table 2.6: Percentage of Obligations Assigned to Laboratories and Centers Activities

Activity[a]	Percentage of awards 1980	1985
Laboratories		
New data collection	34%	24%
Dissemination	29	41
Other	37	35
Total[b]	**$50**	**$39**
Centers[c]		
New data collection	62%	56%
Dissemination	12	21
Other	27	22
Total[b]	**$25**	**$28**

[a]Excludes 1985 data for the Educational Technology Center and the North Central Regional Education Laboratory.

[b]Multiyear awards in millions of current dollars.

[c]Excludes data from centers supported by NIE's discretionary funds.

Source: Department of Education Office of Research Computer Management Information System.

ratory-sponsored projects in 1980 involved some funds for dissemination, but by 1985, 96 percent of all projects devoted funds to this activity. Furthermore, across the projects, the median allocation of funds spent on dissemination rose from 20 percent to 30 percent between 1980 and 1985.

The shift away from new data collection by the research units may have serious long-term consequences for education information. At present, it is possible to use prior research to address questions when new data collection has not been undertaken. However, prior research may quickly lose its relevance or it may be too low in technical adequacy to sustain continued reapplication to new questions. New data must constantly be produced to meet both departmental and congressional information requirements and to provide up-to-date information to disseminate to teachers and other practitioners. If it is not, information will be forgone and policies will be based on less than the most complete, relevant, and timely data.

Statistics

Until recently, new statistical data collection efforts in the department have received less priority than other activities, including the maintenance of existing data systems. Data for this discussion come from recent reviews we and the Congressional Research Service have made of the federal statistical system between 1980 and 1984.[3] These studies reported that NCES reduced its information activities over this period. In our 1984 study, we found that two criteria were used in the decisions to reduce data collection: whether or not an activity was part of a core program and whether or not the data collection had a congressional mandate or was a departmental requirement.

The core surveys (those that provide the basic information on student, staff, and institutional characteristics or carry out the NCES mission) were given highest priority. The Common Core of Data and the higher-education information system were included as core surveys. Areas that underwent reductions included technical assistance, library services, and statistical research. New initiatives in data collection and efforts to improve statistical methodology were also significantly reduced.

Specific efforts that either scaled back or eliminated ongoing data collection activities are reported in table 2.7. Some of the reductions, such as the delay in the noncollegiate postsecondary school survey, led to gaps in education data. Decreases in sample sizes and the frequency of data collection call into question the precision of the resulting data. Validity studies, which had previously been made on some surveys, were also eliminated. (Specific changes in NCES primary, elementary, and secondary school surveys are reported in table II.1 in appendix II.)

In reporting changes in NCES surveys, we do not imply that these are necessarily problems. Some series may no longer be valuable; new series may be needed; continued surveys may be organized and sequenced in ways that are less burdensome and permit more useful analyses across surveys. However, the changes between 1980 and 1984 were not part of an external, systematic review of statistical needs.

[3]U.S. House of Representatives, Committee on Government Operations, The Federal Statistical System 1980 to 1985 (Washington, D.C.: November 1984), and U.S. General Accounting Office, Status of the Statistical Community After Sustaining Budget Reductions, GAO/IMTEC-84-17 (Washington, D.C.: July 18, 1984).

Table 2.7: Changes in Education Surveys in Fiscal Years 1981-84

Action	Survey	Savings
Elimination	Technical assistance grants to states	$350,000
	Survey of recent college graduates	224,000
	1982 teacher demand-and-shortage survey	175,000
	National Vocational Education Data System	[a]
Reduction		
Precision	National longitudinal survey of high school and beyond	$225,000
Coverage	Parts of the Higher Education General Information Survey	[a]
Periodicity	Student residence and migration survey	[a]
	Library general information survey	[a]
Substitution	Supplement to current population survey replaced data on students in noncollegiate postsecondary schools	[a]
	Nonfederal support replaced NCES support for national longitudinal survey of the high school class of 1972, fifth follow-up	[a]
Delay	Analysis of private school survey	$200,000
	Noncollegiate postsecondary school survey	225,000

[a]Not available.

Source: Department of Education; U.S. General Accounting Office, Status of the Statistical Community After Sustaining Budget Reductions, GAO/IMTEC-84-17 (Washington, D.C. July 18, 1984), pp. 52-54.

In late 1985, a commendable effort was made to undertake such a systematic external review and CES initiated an internal redesign of its data collection efforts. In December 1986, CES began implementing one product of these reviews—the Elementary and Secondary Information Data System. As it is now planned, this system will incorporate current surveys and six new surveys into one system (see appendix II, table II.2).

Evaluation

Like the department's research function, the Office of Planning, Budget, and Evaluation is involved in a variety of activities that include new data collection and technical assistance to the states. We compared the types of activities for 1980 and 1985 and identified changes in the distribution of activities. Table 2.8 and figure 2.1 present the results of our analysis. (Random samples of contract awards for 1980 and 1985 are listed in tables I.3 and I.4.)

The number of evaluation activities producing new data has declined substantially. In 1980, there were 59 new data activities. In 1985, there were 18—a decline of 69 percent. In terms of total contract activities,

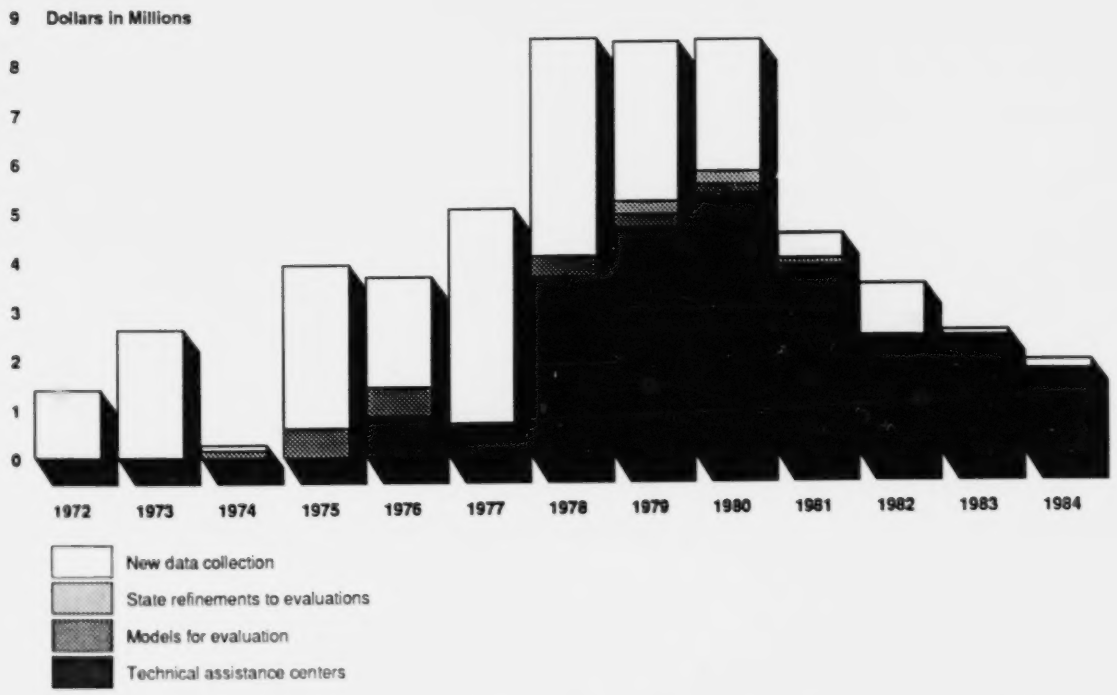
Table 2.8: Number of Office of Planning, Budget, and Evaluation Contract Awards for Fiscal Years 1980 and 1985 by Type of Activity

	Percentage of awards	
Activity	**1980**	**1985**
New data collection	50%	72%
Technical assistance to states for data collection and refinement in data collection systems	29	12
Other[a]	21	16
Total number of contracts	**119**	**25**

[a]Includes planning, data file development, and research support.

Source: Department of Education, Office of Planning, Budget, and Evaluation, annual evaluation reports for fiscal years 1980 and 1985.

Figure 2.1: Office of Planning, Budget, and Evaluation Compensatory Education Obligations for Fiscal Years 1972-84 by Type of Activity



Source: Office of Planning, Budget, and Evaluation annual evaluation reports for 1972 and 1984 and data provided by OPBE staff

however, the percentage increased. New data collection represented 50 percent of total contract awards in 1980; in 1985, it represented 72 percent of the total. As can be seen in table 2.8, OPBE funded very few other activities in 1985.

In at least one area—compensatory education for the disadvantaged—OPBE turned almost completely away from its involvement in evaluation. Tracking the activities over time, we found that a greater proportion of its compensatory education resources were being taken up by technical assistance work—that is, technical assistance centers, models development, work related to the Title I Evaluation and Reporting System (TIERS), and state refinements to Title I evaluations (see figure 2.1). By 1984, only about 9 percent of the total funds spent on compensatory education (about $180,000 in constant dollars), supported anything other than technical assistance.

Shift in Focus

The concern that new data will not be available for future departmental information needs led us to compare the 1980 and 1985 new data collection awards by area of study. We were interested in the areas that were no longer targets for new information collection and in identifying areas that have been most recently emphasized.

Research

Table 2.9 shows the new data research awards coded by area for all discretionary awards. Every area saw a substantial reduction in the number of awards. In 1980, for example, 56 of the 293 awards for new data went toward studies of special populations such as minorities and women. In 1985, there were five such studies. Some areas such as learning in the home, at school, in the community, and at work and what we identified as "school problems," including such issues as dropouts and delinquency, received no new data funds at all. The only area that was added for 1985 awards was education standards and only one study was done in this area.

These reductions in new data collection are particularly a problem when looked at as areas that appear to be in most need of educational reform. In a report prepared for the National Council on Educational Research early in 1984, the Center for Leadership Development (CLD) outlined areas seen as priorities. From its review of eight major national reform studies, a survey of 72 educational experts, regional meetings held at laboratories and centers in 1983, and two departmental assessments, CLD identified the most critical areas as follows:

Table 2.9: Number of National Institute of Education Individual Research Awards for New Data Collection in 1980 and 1985 by Area of Study

Area[a]	1980	1985
Special populations		
Disadvantaged	2	3
Bilingual	13	1
Language minority	3	1
Handicapped	7	0
Minority	9	0
Blacks	8	0
Native Americans	3	0
Females	10	0
Hispanics	1	0
Total	**56**	**5**
Area studies		
Reading and writing	40	2
Math and science	23	1
Language acquisition	5	0
Social studies	1	0
Literacy	7	1
Total	**76**	**4**
Teaching and instruction		
Teachers	14	1
Instruction	7	0
Effective schools	12	3
Total	**33**	**4**
Learning in nonschool settings		
Parents and family	6	0
Work	2	0
Play and work	1	0
School, home, and community	3	0
Adult education	4	0
Total	**16**	**0**
Technology		
Computer technology	2	1
Other education technology	3	0
Radio and television	1	0
Total	**6**	**1**

(continued)

Area[a]	1980	1985
School finance and resources		
Finance	3	0
Resources	2	0
Total	**5**	**0**
Education administration		
Leadership and management	9	0
Education administration	10	0
School district	2	0
Elementary and secondary education	1	0
Postsecondary education	3	0
Total	**25**	**0**
School problems		
Dropouts	1	0
Delinquency	2	0
Desegregation	7	0
Equity	4	0
Mainstreaming	1	0
Declining enrollments	2	0
Total	**17**	**0**
Student outcomes		
Achievement	2	1
Cognition	8	1
Social learning	1	0
Student success	2	0
Careers	3	0
Total	**16**	**2**
Testing and assessment	17	0
Research on dissemination		
Dissemination	2	0
Educational Resources Information Centers	2	0
Total	**4**	**0**
Other		
Miscellaneous	12	0
Policy	10	0
Education standards	0	1
Total	**22**	**1**
Total	**293**	**17**

[a]This list includes nonlaboratory and noncenter awards.

"Improved teacher preparation is probably the most important, followed closely by a need to strengthen curriculum in mathematics, science and English. More effective instruction, classroom management and school leadership are frequently mentioned along with a continuing concern for a definition of the federal role in education."[4]

These were seen as the priority areas, but there were few awards for new data collection on these topics in 1985.

As we indicated earlier, the centers and, to some extent, the laboratories do collect new information. In 1985, they were almost the sole source for up-to-date knowledge. The topics of laboratory and centers programs were reported in terms of NIE priorities for 1980-85. However, ambiguities in the available data prevented detailed analyses of the 1980 and 1985 awards for changes in research topics. Detailed information was not available that would have permitted us to determine how many awards were directed at various disadvantaged populations, for example. In 1985, competition led to awards for centers for topics that taken broadly, and together with NIE "discretionary" centers for reading, instruction, language learning, and technology, are more closely related to the priorities that might be derived from the educational excellence and reform initiatives CLD identified.

Evaluation

In looking at the areas of new evaluation data collection for OPBE, we found the breadth of coverage diminished in 1985 compared to 1980. As table 2.10 shows, contract activities in 1985 covered special populations, higher education, elementary and secondary education, vocational education, and rehabilitation. In addition, awards were given for work on policy issues of interest to the department. In 1980, awards were given in most of these areas as well as many others, including teachers, school finance, desegregation, basic skills, and library and education resources. For areas in which OPBE awarded contracts in 1980 and 1985, the proportion of awards remained roughly the same. For example, 41 percent of its contracts were awarded for work with special populations in 1980, and 44 percent went to the same area in 1985.

[4]Center for Leadership Development, Creating and Disseminating Knowledge for Educational Reform: Policy Management of the National Institute of Education's Regional Educational Laboratories and National Research and Development Centers (Los Angeles, Calif.: February 1984), p. 13.

Table 2.10: Number of Office of Planning, Budget, and Evaluation New Data Contract Awards for 1980 and 1985 by Area of Study

Area	1980	1985
Special populations		
Disadvantaged	12	0
Bilingual	4	3
Language minority	1	2
Handicapped	2	1
Native American	2	2
Women	1	0
Neglected and delinquent	1	0
Migrant	1	0
Total	**24**	**8**
Area studies: basic skills	3	0
Teaching and instruction		
Teachers	1	0
School improvement	1	0
Total	**2**	**0**
Learning in nonschool settings		
Parents	2	0
Adult and career education	2	0
Community education	1	0
Total	**5**	**0**
School resources and finance	2	0
Education administration: school districts	1	0
School problems: desegregation	4	0
Policy: department issues	0	3
Postsecondary education	3	1
Student loans and grants	5	0
College enrollment	0	1
Cooperative education	1	0
Total	**9**	**2**
Elementary and secondary	0	1
Chapter 2	0	1
Total	**1**	**1**
Vocational education	1	1
Rehabilitation	0	3
Dissemination: National Diffusion Network	1	0
Training	2	0
Federal education programs	1	0
Library or education resources	2	0
Program evaluation	1	0
Total	**59**	**18**

In addition to the analysis of contract awards, we had additional data with which to describe the office's activities. For 1980 and 1984, we surveyed all federal nondefense evaluation units on their program evaluation activities.[5] OPBE responded to both surveys, allowing us to compare the nature and scope of its activities in these 2 years.

In 1980, 15 percent of staff time was devoted to internal evaluations, and 60 percent was consumed by planning and monitoring external evaluations. In 1984, no staff time was devoted to internal evaluations, external evaluations accounted for 40 percent of staff activities, and policy analysis consumed 35 percent of staff time, a new activity. Policy studies were not conducted in 1980.

Other changes included a decrease in new data collection and a shift to smaller-scale studies. The respondent to the 1984 questionnaire indicated greater reliance on the use of existing data sources, including data from other federal agencies and departments, private companies or corporations, and private interest groups and associations.

The 1984 survey asked respondents to assess the extent to which the evaluation function within their units had changed since 1980 and to interpret the changes. The respondent for OPBE reported a shift to smaller-scale management studies (for example, policy analyses). Several reasons for this shift were noted: (1) the conversion of categorical grants to block grants, (2) OPBE's no longer having enough funds to conduct discretionary evaluation activities, (3) the belief that management and policy-oriented studies were as useful, and (4) more specific and focused departmental requests for this type of information. The shift was not attributed to a lack of staff or to no need for program evaluation (under the idea that programs had already been sufficiently evaluated or were terminated).

Information Producers

Two other notable shifts in information-related activities were a shift in research production away from individual researchers and agencies toward the laboratories and centers and a shift from grants for researchers toward contracts.

[5]U.S. General Accounting Office, Federal Evaluations: Fewer Units, Reduced Resources, Different Studies From 1980, GAO/PEMD-87-9 (Washington, D.C.: January 23, 1987.)

Research

For research, we compared laboratory and center awards (that is, awards to department-sponsored institutions) in the three program areas—teaching and learning, educational policy and organization, and dissemination and improvement of practice—with awards to individual researchers and public and private agencies for 1980 and 1985 (see table 2.11). Overall, the proportion of awards made to department-sponsored institutions increased substantially from 1980 to 1985. The institutions carried out 25 percent of the awards in the three program areas in 1980, compared with 56 percent in 1985. Thus, NIE increasingly relied on the laboratories and centers for information production.

Table 2.11: National Institute of Education Awards to Institutions and Individuals in 1980 and 1984

	Percentage of awards	
Recipient	**1980**	**1985**
Institutions[a]	25%	56%
Individuals[b]	75	44
Total number of awards[c]	**492**	**282**

[a]Regional laboratories, national research centers, discretionary research centers, and education information centers.

[b]Individual investigators in universities, research organizations, and similar agencies such as nonprofit educational advocacy groups and state education organizations.

[c]Includes teaching and learning, educational policy and organization, and dissemination and improvement of practice.

Source: National Council on Educational Research annual reports for 1980 and 1985 and the Office of Research on-line system.

Using NIE data, we examined the proportion of work funded through contracts and grants, excluding awards for laboratory and center operations. We compared 1980, the earliest data we had available, to 1985, the most recent data. The use of contracts increased proportionally and substantially. In 1980, only 23 percent of the awards were contracts; in 1985, this rose to 86 percent. For grants, both the actual number and proportion of total awards declined precipitously: 336 awards fell to 17 awards and 75 percent fell to 11 percent.

Statistics

NCES funded its work through contracts rather than grants. NCES did not fund its work through institutions such as special centers in either 1980 or 1985, although it did support long-term projects such as the State Education Assessment Center, operated by the Council of Chief State School Officers.

Evaluation

The Office of Planning, Budget, and Evaluation made awards in both 1980 and 1985 primarily through contracts rather than grants. However, in 1980, the award mechanisms were more diverse. In recent years, OPBE has made long-term awards for policy analyses. These were not, however, comparable to awards to laboratories and centers, since the OPBE awards are used for the studies specified by the department that provide data collection and analytic support with a fast turnaround and, therefore, are more comparable to contracts.

Summary

The cumulative result of the shifts in awards is that the majority of the department's information producers are institutions or contractors. That is, since NCES and the Office of Planning, Budget, and Evaluation never made many awards for grants to individual researchers, NIE was the primary source of such support. This source, in essence, dried up during the period of our review.

In terms of the implications for educational information, contracts typically involve a greater specification of the questions to be investigated and study design. Also, the products of contracts are typically reviewed by the funding agency before release, whereas the products of grants are typically required after release. While contracts may be most applicable when there is a specific request for information (for example, a congressionally mandated study) or when continuity in data gathering is necessary (for example, in a statistical series), their use as the predominant vehicle for funding research is likely to constrain inquiry.

Chapter 3

The Quality of Information

If information is to inform debates, guide actions, or assess changes, it has to be high in quality. We reviewed evidence regarding four dimensions of quality—relevance, timeliness, technical adequacy, and impact—for the National Assessment of Educational Progress, the Common Core of Data for elementary and secondary education, and the Fast Response Survey System. We assessed changes in quality and factors associated with them in each program. In this chapter, we present our case studies on these three programs and then describe practices associated with each dimension of quality.

In general, NAEP ranked high on all four quality dimensions, but it has suffered some decline in relevance and timeliness in adapting to fiscal constraints. CCD was not rated high on any of the four indicators. Data were not comparable across states; mainly, they were reported at different levels of aggregation or used different definitions and procedures. Further, we could find little evidence on the use of CCD in policy decisions. Problems with CCD have long been recognized, but few have been solved. FRSS was rated moderate to high on quality, especially given the low budgets associated with each survey. It was responsive to the information needs of the requester and minimized time delays by releasing findings early. It appeared to be technically adequate, but the reporting of procedures could be improved.

The case studies reveal several practices associated with high ratings on the quality dimensions. Relevance was increased through the addition of data elements, the tailoring of data collection to the information request, and flexible dissemination. Timeliness was improved by early release of data and diverse formats for dissemination. Technical adequacy was improved through appropriate quality-control procedures and the use of research to assess the credibility of the data.

The National Assessment of Educational Progress

Purpose and Background

NAEP is a congressionally mandated survey of the knowledge, skill, understanding, and attitudes of young Americans. Although the survey was not mandated until 1978 (20 U.S.C. 1221e), the department began funding NAEP data collection in 1968. Since then, more than 1 million 9-,

13-, and 17-year-olds and adults 26 to 35 years old have been assessed. Assessments have been conducted in 10 major school-related areas, but each content area has been assessed at staggered and varying intervals. Because of its sampling format, NAEP is flexible with regard to topic coverage and the target population that is surveyed. On several occasions, small-scale assessments have been added to the NAEP sampling frame and data collection procedures (for instance, the young-adult literacy assessment funded by NIE). NAEP's topic coverage and schedule since 1969 are in table III.2. (The funding history is in table III.1.)

The purposes of NAEP have changed over time. NAEP was originally conceived of as a means of obtaining a national accounting of educational progress. Because fears were expressed that NAEP could be used to devise a national curriculum and thereby encroach on the states' authority, the founders of NAEP deliberately devised the assessment so that it could not be used to derive state-to-state comparisons. Also, the original assessment format could not provide an overall score for an individual student. (Because each student was not tested on all items, matrix sampling of items was used in constructing the test.)

To minimize federal intervention, NAEP was originally conducted by a state-based consortium—the Education Commission of the States. Before 1979, federal funding was portioned out by cooperative agreements between NCES and the commission. In response to the 1978 congressional mandate, NIE assumed responsibility for NAEP and initiated a competitive grant framework. The only bidder was awarded a 3-year grant. After a two-stage competition in 1983, the Educational Testing Service (ETS) won a 5-year grant.

NAEP was awarded about $6 million in 1985, similar to the allocation in 1972. However, the current purchasing power is about $2.4 million, a 59-percent decline.

Relevance

Over the past decade, NAEP's relevance to federal, state, and local stakeholders has been a main reason for criticism. Over the past several years, NAEP has tried to address this concern by collecting extensive data on students' backgrounds, attitude variables, and educational conditions; expanding its policy committee's role in the review and development of background and attitude questions; and increasing the dissemination of and technical assistance for NAEP-generated material to states and local school districts.

However, other changes in NAEP's design have made it less relevant for answering certain types of questions. In particular, in 1969-73, five target populations (9-, 13-, and 17-year-olds in and out of school and adults) were assessed annually (see table III.3). In later years, from 1977 on, the number of target populations was reduced from five principal groups to three (9-, 13-, and 17-year-olds who remained in school). Assessments for specialized groups (for example, dropouts) were conducted on only two occasions in the past decade. In our 1976 assessment of NAEP, we attributed the decision to suspend data collection for young adults to budgetary restrictions.[1] At the time of that review, this action was characterized as temporary. The pattern of assessment since 1976 suggests that budgetary restrictions have had a lasting effect.

The relevance of NAEP for assessing change is inherently limited by the frequency of the data collection. Because the time intervals between assessments have been lengthened, NAEP's ability to examine specific types of questions has diminished. For example, in a recent report on educational achievement, the Congressional Budget Office asserted that although NAEP has been able to document long-term trends in achievement, the intervals between assessments are too wide to ascertain precisely when declines or increases occurred.[2] The frequency with which an area can be assessed is also limited by the nature of the assessment process; if the interval is too brief, there may not be enough time to analyze and interpret the data. Further, capitalizing on lessons learned from each assessment to improve subsequent assessments might also be hindered with shorter testing intervals.

Timeliness

Timeliness can be thought of in two ways: the timeliness of the assessment and the timeliness of reporting and disseminating other information products such as technical reports, bulletins, and public-use data tapes.

Timeliness of Assessment

As we already noted, NAEP's skill areas have been assessed in rotation. This means that the most recent data available for reading may be more than 2 years old and for other areas, such as career and occupational development, up to 12 years old. Furthermore, for areas that have been

[1]U.S. General Accounting Office, The National Assessment of Educational Progress: Its Results Need to Be Made More Useful, GAO/HRD-76-113 (Washington, D.C.: July 1976).

[2]Congressional Budget Office, Trends in Educational Achievement (Washington, D.C.: April 1986).

reassessed, the intervals have been variable. (The pattern of testing over the history of NAEP is given in table III.2.)

Several features of the assessment schedule are worth noting. Reducing the 10 "content domains" to the five "core" areas (reading, science, mathematics, social studies and citizenship, and humanities) was the result of budgetary constraints. Further, whereas prior to 1980 NAEP assessments were conducted annually, the interval between assessments increased from 1 to 2 years in 1980. Budgetary restrictions have also been a factor in this decision, according to the current grantee.

Recent changes in policy, however, have improved the timeliness of NAEP by making the assessment intervals more regular. Reading is scheduled for assessment every 2 years and other content areas have been put on a 4-year or 6-year cycle. There are several technical advantages to this change; for example, students at different grade levels can be contrasted.

Timeliness of Reporting

There have been recent attempts to report NAEP results in a more timely fashion. Further, efforts to disseminate results were recently enhanced through the development of additional nontechnical products. A particular example is the "NAEPgram" recently developed by ETS, the grantee, as a means of informing the educational community of assessment results. ETS reported mailing 100,000 copies of the first "NAEPgram" to all elementary and secondary school principals and other professionals.

In an additional attempt to facilitate the dissemination of findings and improve public access to NAEP information, NIE developed the National Assessment of Educational Progress Information Retrieval System (NAEPIRS). This computerized data base contains findings and descriptions of assessments of 9-, 13-, and 17-year-old students, allowing the users to tailor their assessments (for example, to examine specific subgroups or unreported NAEP data). The department reported that 4,000 copies of the data base had been put into circulation by May 1986.

Technical Adequacy

The technical adequacy of NAEP has been highly regarded in the education community and it has improved over time. In several instances, technical advances have resulted in increased relevance at state and local levels. Standardized age definitions coupled with alterations in the assessment cycle now make it possible to examine differences between groups in a given subject area. Sampling and reporting by grade level (in

addition to age level) make it possible to link NAEP results more closely to state and local assessments (and school practices) that are typically associated with grade levels.

Although earlier assessments employed matrix sampling of assessment areas, the new NAEP design employs a variation of matrix sampling called "balanced incomplete block spiraling," which allows for assessments of relationships between content areas and background variables yet keeps assessment time per student to a minimum (thereby reducing the respondents' burden). This alteration in test administration, in combination with advances in measurement (for example, using item response theory), has improved the ability to compare and interpret the findings (through scaling procedures) over time and between groups. Although NAEP has generally been viewed in a positive light, department officials have expressed concern over the appropriateness of some of the interpretations of the data resulting from special analyses.[3]

In terms of some indicators of NAEP quality, school response rates for 1984 reading assessments uniformly high (ranging from 84 to 90 percent). The sample sizes have been enlarged for each age group, increasing NAEP's overall precision (although the assessment cycle was changed from 1 to 2 years). With regard to sampling variability, technical changes meant that the most recent reading assessment had to report estimated standard errors and provide extensive caveats regarding their level of accuracy.

Nonsampling errors are reduced because the data collection process is standardized through the use of hired and trained staff. All information is collected by field staff, who maintain comparability. Further, unlike previous assessments that employed a paced audiotape to provide directions to the students while they took the test, in the most recent assessment (reading and writing) the students were given oral instructions. To assess the influence of this change in testing, special data collection and analysis documented differences attributable to the changes in testing procedures. What is commendable about this research is that it systematically examined the comparability of important changes in procedures. It also points up the importance of preserving some of the basic methodology of past assessments in order to maintain the usefulness of data on trends.

[3]In a 1986 letter to the NAEP contractor, the assistant secretary for OERI criticized the contractor's interpretation of NAEP data on bilingual education.

Impact

The fourth indicator of quality refers to the use of the information that is gathered. In 1976, we concluded that NAEP's results had to be made more useful to state and local policymakers. We based our conclusion on responses to a survey in which 71 percent of the local education agency officials indicated that they had not used NAEP concepts, methods, or material. Further, while 90 percent of the state education agency officials said they had reviewed NAEP information, 44 percent of those who responded rated the concepts, methods, and material moderate to limited in their utility. In commenting on our report, officials within the department acknowledged the need to improve the usefulness of NAEP and provided a plan for implementing our recommendation.

Sebring and Boruch conducted a more recent review of the uses of NAEP, finding numerous instances of state and local use.[4] They reported that 12 states had replicated NAEP completely as part of their own statewide assessments and that 14 states had adapted the NAEP model. Seventy percent of Minnesota's districts participated in the "piggyback program," in which local districts work under contract with the state to conduct local assessments. Similar practices were found in Connecticut. However, Sebring and Boruch noted that not all the uses to which NAEP or NAEP-like studies have been applied meet acceptable research practices.

Overall, in ranking the usefulness of NAEP to different audiences, Sebring and Boruch concluded that NAEP is the most useful to those with a national perspective. However, the capacity to transfer NAEP's methodology enhances its utility at the state level and below. Currently, NAEP practices are being considered for use in redesigning the elementary and secondary education data system maintained by CES and in efforts by the Council of Chief State School Officers to obtain comparable measures of achievement across states.

Summary and Conclusions

Although NAEP has provided data on the nation's children since 1969, recent changes have helped enhance NAEP's role in understanding the condition of education in the United States. Our review of the available evidence suggests that as NAEP is currently structured, it ranks relatively high on all four indicators of quality (technical adequacy, timeliness, relevance, and impact). NAEP continues its tradition of providing a

[4]P. A. Sebring and R. F. Boruch, "How Is the National Assessment of Educational Progress Used?" Educational Measurement: Issues and Practice, Spring 1983, pp. 16-20.

national perspective on the condition of education and has stimulated better state and local assessments.

NAEP has not escaped constraints associated with the shrinking fiscal support for educational information. It has been affected by budgetary declines in two ways. The number of target populations was reduced from five to three principal groups, and the assessment cycle was altered from annual to biennial, or longer, some content areas being assessed at 4- and 6-year intervals.

Determining the optimum interval between test administrations goes beyond the issue of fiscal resources. The ability of NAEP to record changes in performance depends on maintaining short intervals between assessments. As an interval increases, the ability to signal changes becomes more limited. Further, NAEP does not assess many groups, including students younger than 9 years old. Expanding the substantive scope or the target populations will inevitably require more funding, further restrictions in the coverage of principal populations, or greater reliance on "other" funds (see table III.1).

Funding reductions appear to be associated with some benefits to the overall quality of NAEP. For example, budget restrictions seem to have resulted in the use of more-efficient sampling designs and testing procedures. Altering the testing cycle from 1 to 2 years has allowed an increase in sample size and, therefore, greater precision. The trade-off here is clear—although successful adaptations to fiscal constraints seem to have resulted in increased technical adequacy, relevance and timeliness have declined somewhat.

The Common Core of Data

Purpose and Background

Within NCES, data on elementary and secondary education are gathered from several distinct types of survey (NAEP among them) and administrative records. This case illustrates the quality of the Common Core of Data, which is based mostly on administrative records maintained by state education agencies. Several types of fiscal and nonfiscal data are obtained from state administrative records. CCD was initiated in 1974

"to fill current gaps in policy relevant educational data, to facilitate provision of information needed on a recurring basis, and to increase the usefulness of data to meet the needs of educational policy-makers at all levels."[5]

CCD generally collects information annually or on some other schedule. The version of CCD during our review consisted of six surveys (see table III.4). Information on instructional staff, students, expenditures, revenues, and school characteristics are gathered from schools and local education agencies by a state education agency and transmitted to NCES.

Planning for the system began with four grants to develop the requirements of state and local users of the Common Core of Data. The system was field-tested in 1976 and implementation began in the 1977-78 school year. It was intended to replace ELSEGIS. In its original form, CCD contained more program elements than we give in table III.4. In fact, our third case illustration—the Fast Response Survey System—was originally developed as part of the early CCD. Other surveys have been eliminated or scaled back (as discussed in chapter 2) in concert with a special task force of the Committee on Evaluation and Information Systems (CEIS).

Beginning with an education statistics advisory council report in 1957, concerns have been raised about the quality of administrative data from intermediate sources. In 1985, the department undertook its own internal review of the elementary and secondary education data system, including CCD. Department officials asked the committee on national statistics of the National Academy of Sciences (NAS) to conduct an independent assessment of the center.[6] Both internal and external reviewers relied heavily on over 50 letters, comments, and other papers that NCES officials solicited from professional organizations and users and producers of NCES data. NCES staff and outside consultants also synthesized the comments from these reviewers and commissioned analyses on how the system should be reconfigured to take into account its problems and deficiencies. NCES staff have issued a draft report on how to alter the system to improve its overall quality.

[5]National Center for Education Statistics, Projects, Products, and Services (Washington, D.C.: U.S. Government Printing Office, 1976, p. 102).

[6]The NAS study, issued in September 1986, was quite broad in its charge and included four major aspects: to review, describe, and assess data quality and quality-assurance processes, program contents and services, and the timeliness of data collection and dissemination and to identify issues that obstruct or hinder NCES in accomplishing its mission. Only part of the study is described here.

The series of reports generated by these reviews substantially agree on the general problems of the technical adequacy and usefulness of CCD and other surveys in the current system. Many experts regarded data stemming from the elementary and secondary education program as deficient on one or more of our quality indicators. Evidence for their conclusions does not focus exclusively on CCD, however. Closer inspection of each quality dimension points out CCD's strengths and weaknesses.

Relevance

Several assessments raise questions about the relevance of NCES data collection efforts for elementary and secondary education. One review emphasized the lack of comprehensiveness of the entire elementary and secondary education information system.[7] The reviewers noted that CCD was inadequate for answering questions on the relationships between student background, processes, and outcomes but that it did contain some relevant information on resources. In contrast, a similar, though not strictly comparable, analysis in a 1976 NAS report suggested that ELSEGIS, the forerunner to CCD, had been more responsive to the assessment of inputs, processes, and outcomes, suggesting that CCD had deteriorated.

A 1986 internal department review of the comprehensiveness and availability of data across various programs, including CCD, revealed considerable gaps in the present statistical system. The chief source of dissatisfaction stemmed from the system's inability to answer nine fundamental questions about educational input, participation, process, content, cost, and outcomes. Looking across levels of education, the assessment showed that data were almost nonexistent for preschool children and completely absent for persons no longer in school. The only area for which CCD provided adequate data concerned the providers of educational services.

One potential strength of CCD was that data were obtained from all state and local education agencies. However, information was reported in such a way that it could not always be broken down into meaningful units (such as local school districts and schools). This has been a major criticism of CCD, especially for the school finance data. In some instances, data are no longer being gathered. For example, CCD no longer

[7]V. Plisko, A. Ginsburg, and S. Chaikind, "Assessing National Data on Education," U.S. Department of Education, Washington, D.C., August 1985.

collects information on what each state pays its teachers, a critical resource expenditure.

Timeliness

Several recent reviews have concluded that the center's activities have been inadequate with regard to timeliness, a problem that dates back 30 years. For example, a paper commissioned by NCES noted that by July 1985, data on enrollment by grade were no more recent than fall 1983.[8]

To provide a better understanding of such deficiencies, we examined the age of data on elementary and secondary education reported in the 1980 and 1983-84 editions of the Digest of Education Statistics (in September 1986, the latter was the most recent publication). Since the Digest reported both CCD information and data gathered in other ways (such as surveys) and by other organizations (the Census Bureau and the National Education Association), we report our analysis of CCD and non-CCD data separately.

Table 3.1 shows that the age of data reported in each issue of the Digest for both 1980 and 1983-84 ranged from 6 months to more than 10 years. Judging from the age of other non-CCD data reported by NCES and other agencies, the delays associated with CCD are not unique. However, in 1980, other agencies or sources produced a higher percentage of relatively current data (12 months old or less). Comparing 1983-84 with 1980 indicates an increase in age, particularly for data generated under the CCD system of reporting. In addition, the 3-year interval between Digests (in this instance, between 1983 and 1986) means that the most recent information can be even more out of date. Therefore, we concur with the critics who regard the timeliness of routinely reported data as a serious concern.

[8]G. Hall et al., Alternatives for a National Data System on Elementary and Secondary Education (Washington, D.C.: Center on Education Statistics, December 20, 1985).

Table 3.1: The Timeliness of Data Reported in the Digest of Education Statistics in 1980 and 1983-84

	% of total data elements			
	1980		1983-84	
Months out of date	**CCD**	**Other**	**CCD**	**Other**
12 or less	0%	39%	6%	6%
13-18	33	22	9	24
19-24	33	0	18	6
25-36	11	6	52	47
37 or more	22	33	16	18
Number of elements	**27**	**18**	**33**	**17**

Source: Some of the 1980 CCD data are from the Elementary and Secondary Education General Information Survey. The remainder of the data are from CCD.

One reason for these reporting lags is that the review and publication processes require more time now than in previous years. For example, the 1986 Digest was submitted for review in August 1985 but not published until 13 months later. In contrast, the draft Digest for 1964 was submitted for review in June and published 3 months later. One official noted that reducing the length of the review process could reduce the lag between data collection and publication of the results, especially since the 1986 document was changed very little by the review.

A second reason for the publication lags is the timeliness of state reporting. It takes longer now than in previous years to obtain the information required from the state education agencies. We were not able to determine the reasons for this, but pragmatic steps might be to establish cutoff dates and to use estimates for delinquent states.

Technical Adequacy

As we noted above, CCD is composed mostly of data derived from state administrative records. The system was designed to provide a census of schools and local and state education agencies. The accuracy of the data and their comparability across state education agencies is of central concern for this type of information. Our review reveals limited evidence on changes in the quality of CCD-derived data. We focus on the availability, comparability, and accuracy of selected data elements.

Availability

Whether information from administrative records can be reported to the department depends on whether and how they are maintained by state education agencies. The most recent and complete assessment of these issues as they pertain to CCD was conducted by the State Education

Assessment Center. This work, known as the Education Data Improvement Project, was supported by the Council of Chief State School Officers and NCES.[9] State by state, the project examined the comprehensiveness and comparability of selected data elements, some of which were part of CCD while others were deemed important enough to be added to CCD.

The Education Data Improvement Project showed that the states differ substantially in the availability of data elements. For example, all the state education agencies that participated in the study can report enrollment or membership data on public school students but only 80 percent (including the District of Columbia) can report similar data for nonpublic schools.

To gain a better understanding of this diversity, we examined the percentage of states that maintained each of 35 data elements at the school district level. Twelve data elements were part of CCD and the remainder were identified by Education Data Improvement Project staff as elements important enough to include in CCD. Since the states can differ in the level of aggregation they maintain for each data element, table 3.2 displays the frequency of data elements available at the school level of aggregation: only 2 of the CCD data elements are available at the school level for 40 or more of the states, but 11 of the 23 proposed data elements are available at the school level for 30 or more states.

Table 3.2: Data Elements Available at the School Level of Aggregation

Number of states	CCD	Proposed
40-49	2	1
30-39	6	10
20-29	2	5
10-19	2	4
0-9	0	3
Total	**12**	**23**

Source: The school universe file of the Common Core of Data for 48 states and the District of Columbia reported in Council of Chief State School Officers, Summary: State Collection Practices on Universe Data Elements (Washington, D.C.: U.S. Government Printing Office, September 1986)

[9]The goals of the Education Data Improvement Project are to describe state collection of CCD data elements, describe other elements that might make it more adequate and appropriate for reporting on the condition of the nation's schools, and recommend to CES and the states ways for making it more comprehensive, comparable, and timely.

Comparability

Data on schools and local and state education agencies must be comparable to be useful. Critics of CCD have argued that the data are not comparable because definitions of variables differ within and across states. For example, NCES and others note that school attendance is defined to include "excused absences" in California but not in other states.

The Education Data Improvement Project assessed, in detail, the similarity of definitions and procedures for enrollment, fall enrollment, membership, and average daily membership. A comparison of state definitions and procedures with those prescribed by NCES showed that many of the states that collect these data elements are consistent in their definitions of "enrollment" (27 of 32 states, or 84 percent), "membership" (40 of 40 states, or 100 percent), and "average daily membership" (40 of 40 states, or 100 percent). In contrast, most of the states (44) maintained data labeled "fall enrollment," but few (only 17, or 39 percent) agreed with a common definition. The "fall enrollment" definitions differed in the date used to establish enrollment (spanning from either September or October) or in criteria (different numbers of days that had to pass before taking the count). Many of the states that agreed on definitions of the various data elements differed in the procedures they used for calculating them. To explain these and other state-to-state differences, the project's staff observed that NCES is often inconsistent in the use of terms on data collection forms and in the guidelines for completing them.

Accuracy

Precise estimates of the degree to which CCD elements are in error are difficult to obtain. Although NCES planned in the early 1980's to develop a program of quality-control studies of the data in its collection (similar to that conducted by the Bureau of the Census for its current population survey), comprehensive assessments were not carried out. Reviewers of NCES activities have illustrated technical problems by making selective comparisons that may not represent all elements of the CCD data base. They have found

- estimates of dropout rates that differed by 50 percent,
- estimates of school discipline problems that differed by a factor of 10, depending on the source,
- vocational education enrollments in some states that exceeded their entire high school populations, and
- estimates of the size of the population of students with limited proficiency in English that differed by as much as 200 percent.

These examples illustrate some serious inaccuracies, but assessments of their prevalence within CCD have not been undertaken, although a 1985 assessment conducted as part of the Projections of Education Statistics program within NCES provides some indirect evidence. The accuracy of a projection is determined by the adequacy of the projection methods (NCES used methods developed by the Bureau of the Census) and the consistency of the base data (drawn from CCD) over time, so that its analysis provides a partial basis for evaluating the degree of error in the data. This may not help detect reporting biases that may persist from year to year, but differences between projected and reported values provide some evidence of the magnitude of year-to-year instabilities and other errors. Flaws in the projection methodology will also contribute to such differences, but for short-run forecasts, inaccuracies in the data used in the projection are likely to contribute more to the projection errors than is the projection methodology.

NCES has been making projections of student enrollment, instructional staff, degrees awarded, and expenditures for elementary, secondary, and postsecondary education since the mid-1960's. In 1985, NCES staff assessed the accuracy of their 1966-82 projections by examining how closely earlier projections resembled data reported later for those same years. For example, enrollments predicted for 1980 were compared to the actual enrollments in 1980. For this assessment, multiple sets of projections (1 to 10 years) were examined, and the average absolute percentage of projection error was used to assess the general accuracy of the NCES projections for enrollment, instructional staff, and degrees awarded.

With short forecast horizons (1 to 2 years), primary and secondary school enrollment projections were in error by less than 1 percent as seen in table 3.3. Projection errors were higher for number of high school graduates—1 to 2 percent for short forecast horizons—and less than 2 percent for instructional staff. Table 3.3 also shows that these are considerably less accurate as the forecast horizon increases, especially for 10-year projections. Although indirect, the short forecast projections suggest that for some variables, inaccuracies might be fairly small even if all the errors detected were the result of problems in the CCD data.

Table 3.3: Absolute Percentage Error of Projections for Selected Elementary and Secondary Education Data by Lead Time

Data element	Forecast horizon in years 1	2	5	10
Enrollment by grade				
K-8	0.3%	0.6%	0.9%	8.8%
K-12	0.2	0.4	0.8	7.2
9-12	0.6	0.8	2.0	5.3
Number of high school graduates	1.1	2.1	4.3	12.4
Number of classroom teachers	0.9	1.5	3.7	4.7

Source: Adapted from National Center for Education Statistics, Projections of Education Statistics to 1992-1993: Methodological Report with Detailed Projection Tables (Washington, D.C.: U.S. Government Printing Office, 1985), p. 31.

Impact

CCD provides most of the basic data for elementary and secondary education for the Projections of Education Statistics; it is featured in The Condition of Education and the Digest of Education Statistics (about two thirds of all tables reporting on elementary and secondary education in recent editions have involved data from CCD); and it appears to be used extensively by the department's statistical information office in responding to questions from a wide variety of federal, state, and local policymakers, teachers, and other constituents. However, in serving the needs of education policymakers, CCD has not had the kind of impact it could have had if problems of technical adequacy, timeliness, and relevance had been corrected.

Summary and Conclusions

Although CCD has some strengths with regard to its relevance, timeliness, and technical adequacy, the balance of evidence suggests that it contains numerous inadequacies. With few exceptions, data were not uniformly available from all states. When data were available, they were not on the same level of aggregation; some states had data available at the school level, while others maintained them at the school district level. Further, definitions and procedures for reporting data elements differed across states. With respect to CCD's impact, there is little direct evidence of its use in policy decisions other than its role in supporting center publications and education projections and as a resource for answering inquiries. Despite complaints dating back 30 years, recent reviews indicate that few of the problems have been solved. However, some CCD data were technically sound enough to yield consistent short-term projections, and some data elements were reasonably consistent across states, suggesting that it is possible to obtain some usable data from administrative records.

Fast Response Survey System

Purpose and Background

The Fast Response Survey System was established by NCES in the mid-1970's to furnish data quickly when timely national estimates were needed for important educational issues. FRSS was designed to (1) minimize the respondents' burden (typically three to five questions are asked in a sample survey), (2) keep the time between a survey in the field and reporting its results to a minimum through a network of data coordinators, and (3) collect narrowly limited information that was not available from other sources.

FRSS was designed to gather information as needed through a contractual arrangement with a private survey research firm from one or more of the following six educational sectors: (1) state education agencies, (2) local education agencies, (3) public elementary and secondary schools, (4) nonpublic elementary and secondary schools, (5) institutions of higher education, and (6) noncollegiate postsecondary schools with occupational programs. A data collection network was developed for each sector. Coordinators assisted in collecting data by maintaining liaison with sampled institutions and agencies. Representatives of each institution or agency were identified and responsible for completing the questionnaires. Data collection was intended to take 6 to 10 weeks.

Whereas all state education agencies were included in the system (making it a census), stratified random samples (with numbers of respondents ranging from 500 to 1,000) were designed to yield reliable national estimates for schools, local education agencies, and other institutions. Twenty-four reports or bulletins were issued between 1976, when the first FRSS study was reported, and September 1986. In interviews with present and former FRSS project monitors, we were told that surveys of state education agencies usually cost about $25,000 each and surveys based on nationally representative samples cost $80,000 to $100,000. The FRSS system is currently funded by a 5-year contract and has an annual budget of about $200,000 to $350,000.

Relevance

FRSS is different from other information collection systems by being an information service, available only to department officials, rather than an existing information source. Practices differed across FRSS surveys, but the contents were generally specified collaboratively by the

requester, center staff, the Committee on Evaluation and Information Systems, and the contractor, all jointly involved in refining the policy questions, developing the survey, and determining the nature and scope of the analyses. The system was designed to tailor data collection to the needs of the requester. That is, relevance is built into the system, if it is fast enough to deliver results before changes overtake the requester and the questions.

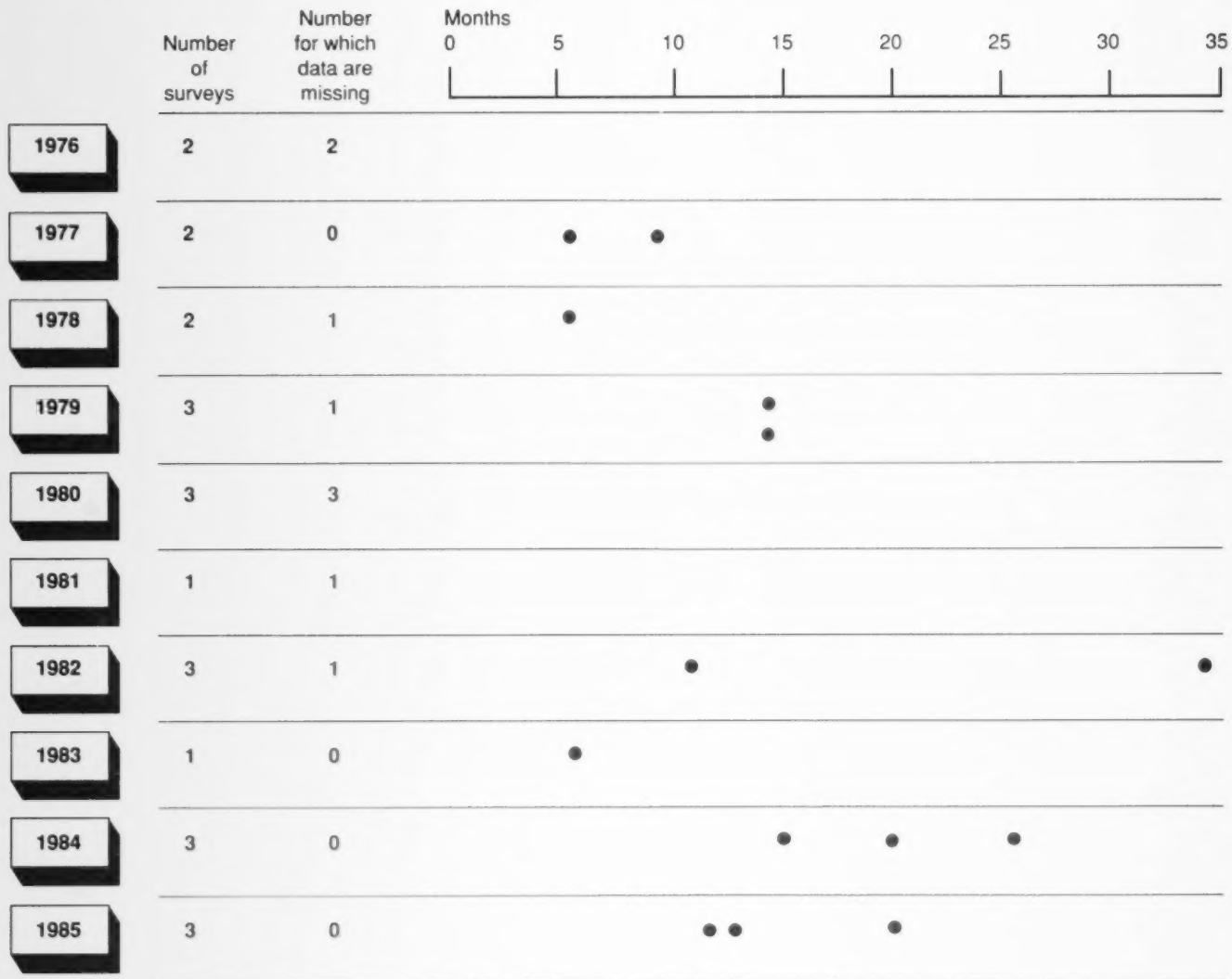
FRSS differs from other information-gathering activities in terms of whom it attempted to serve in each survey. As a matter of policy, the system is limited to officials within the department who have a high-priority need for quick information. Our analysis of the initiation of 23 requests showed that three broad groups have relied on FRSS. In 10 instances, requests came from officials within the Department of Education (the assistant secretary, undersecretary, or a program officer within the department). In 4 other cases, the department official used the system as a way of fulfilling parts of congressional mandates or requests. Six studies were initiated by special commissions, members of advisory groups such as NCER and the National Commission on Excellence in Education, or leaders of special initiatives established by the secretary or the president. It was not possible to determine who initiated the remaining 3 FRSS reports.

Timeliness

FRSS was developed to address, in part, concerns for which existing data were not available, not current, or not national in scope. While evidence of the timeliness of all fast response surveys is incomplete, it appears that delays have gotten longer. Figure 3.1 displays the available data on the elapsed time between the completion of a survey protocol and its publication or release date. For the early years of the system, 1976-79, the publication date could be determined for only five of the nine surveys. For these, the elapsed time varied between 6 and 14 months. The data for later years, 1981 to 1986, are more complete; the elapsed time was variable, ranging from 6 to 34 months. Timeliness appears to have declined, on the average, since the late 1970's.

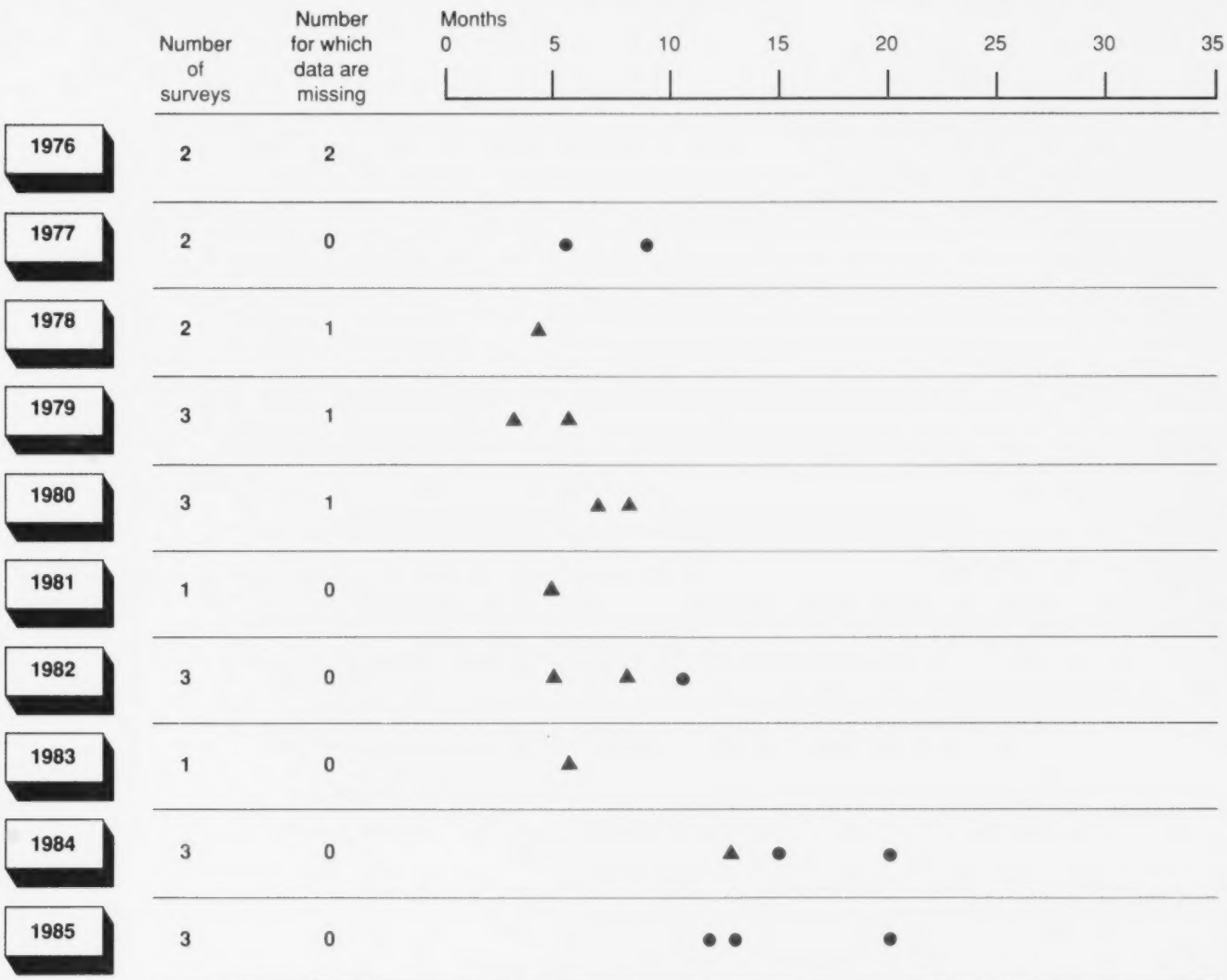
Interviews with center staff suggest that this indicator overestimates and underestimates the timeliness of the FRSS products. On the one hand, since no documentation is available on when requests were made, using time when the survey protocol is developed and has been cleared through the review process—that is, through the Federal Education Data Acquisition Council (FEDAC), CEIS, and the Office of Management and Budget (OMB)—may underestimate the elapsed time by 4 to 8 months.

Figure 3.1: FRSS Time Between Survey Development and Publication 1976-85[a]



[a] "●" represents an individual survey.

Figure 3.2: FRSS Time Between Survey and Earliest Known Release Date 1976-85[a]



[a] "●" represents an individual survey; "▲" represents an early or advanced release.

On the other hand, preliminary results were frequently reported to a requester prior to the official publication date. Although the information on preliminary releases is incomplete, the surveys for which early release dates are known show little increase across time (see figure 3.2). With the exception of one relatively recent survey (FRSS number 19), elapsed time ranged between 3 and 8 months.

Technical Adequacy

We examined the technical adequacy of each FRSS survey in light of information presented in publicly available documents—that is, final reports and bulletins. To measure the technical adequacy of these products, we examined the sampling frame: precision, or sampling error; response rates; and treatment of nonresponse and other forms of nonsampling error.

Sampling Frame

A sampling frame is the basis for the selection of a sample. Whether a sample represents the population depends on the accuracy of the sampling frame. In most reports, the population of interest was clearly identified. However, the extent to which the operational sampling frame represented the population of interest was assessed in only one survey (FRSS number 22). In one other (FRSS number 10), the data base used for drawing the sample of higher education institutions was 5 years old. Although the number of schools that were no longer in operation was reported, the universe may have omitted new openings after 1975. In another instance (FRSS number 2), decennial census data had to be used to stratify local education agencies, although this information was more than 5 years out of date by the time the report was issued.

Response Rates

For the 22 reports available for our review, the median reported response rate was 95 percent—by conventional survey standards, a remarkably high rate. For state education agencies, the median response rate was 99 percent. However, closer inspection of the information presented for some sample surveys suggests that response rates may have been inflated by the way the rates were defined. While the initial and final sample sizes were usually reported and decisions to exclude sample elements (as when some sample elements were not appropriate) were briefly documented, response rates were not reported consistently. In 7 cases, response rates were calculated after nonparticipants (that is, refusals) had been excluded from the total usable sample size. In 8 instances, the rates appeared to be based on conventional practices, but in the remaining 7 cases too little information was presented in the reports to make a determination. The description of methodological

practices was less comprehensive in the later years, when the tendency was to issue bulletins rather than final reports.

Precision of Estimates

Four of the surveys we reviewed were targeted at all state education agencies. Since they represented a census, a consideration of variation from sampling error was not necessary. In all the remaining sample surveys, the reports described the precision of the estimates by providing standard errors of estimate or coefficients of variation. Statistical decision rules were described in all applicable cases.

Nonsampling Errors

The credibility of survey data depends also on the absence of other types of error not related to sampling and referred to collectively as "nonsampling errors." For example, bias can be introduced when selected local education agencies refuse to participate (do not respond). Although most reports described adjustments for nonresponse, analytical details were too sparsely reported to ascertain the adequacy of these adjustments. Since the level of participation was uniformly high, the influence of nonresponse was minimized.

Other forms of response error can influence the results. In several reports, the adequacy of the data that were obtained was described. For example, in one survey of institutions of higher education, the respondents were asked to provide estimates if they could not rely on actual administrative records in answering certain questions. Separate and combined analyses were reported. In this instance, the estimated data underreported student-retention rates relative to the data derived from actual records. In another report, considerable effort was devoted to understanding and resolving the reasons the survey produced results that were not consistent with federal records. In terms of survey practices, this level of quality control can be considered exemplary. Also, new quality-assurance procedures have been initiated, including the appointment of a chief statistician who will be reviewing all reports.

Impact

Confirming how requesters used the data produced from FRSS surveys was beyond our scope. NCES documents asserted that FRSS surveys were used to inform policy and to guide program directions. At least one assessment of the center identified dissatisfaction with FRSS. In a 1978 management evaluation of NCES conducted by the department, a program official within the department reported that two attempts to use FRSS were unsuccessful. According to the report, the center refused to

conduct one survey because of the sensitivity of the proposed questions; the second request went unanswered because NCES "took too long to agree to run the survey."[10] In a follow-up interview with a former FRSS project officer, we were told that about one third of all requests are denied for two reasons. First, to justify clearance with OMB, the topic has to have a high priority within the administration or a mandate from the Congress. Second, since the FRSS funding level is limited, the number of surveys that can be conducted is limited.

Summary and Conclusions

FRSS has been called upon to produce information through surveys nearly two dozen times over the past 10 years. On the whole, these surveys appear to have responded to the information needs of the requesters. Although timeliness appears to depend upon how it is defined, the incomplete evidence available suggests that the practice of issuing preliminary results minimizes delays. On the technical side, these surveys appear to follow generally accepted practices, although the reporting of actual procedures is often sparse and some practices could be improved. Given the relatively low budgets associated with each survey, technical adequacy appears to be satisfactory.

Practices Associated With Quality

Across our three cases, quality was variable. NAEP received generally high marks for relevance, timeliness, technical adequacy, and impact. CCD's marks were low on all four indicators. FRSS got high marks on relevance, medium on timeliness, and medium on technical adequacy; our information was too limited to assess its impact. Thus, it is possible to obtain high-quality information through department support and management; it is also possible to have major, long-term problems in a significant information activity. Timeliness and technical adequacy may be more difficult to achieve than relevance and impact, at least in the three statistical systems we examined.

In the next sections, we examine influences on quality in these instances. In the next chapter, we examine influences on both production and quality, drawing on these examples and on other information.

Relevance

As we have noted, relevance refers to the extent to which an information source answers questions posed by the requester or others. Looking

[10]U.S. Department of Education, Office of Management Analysis and Systems, "Management Evaluation: National Center for Education Statistics," Washington, D.C., 1978, p. 12.

across the three case studies, we see that increases in relevance have been associated with the addition of data elements, contrary to current initiatives to reduce the respondent's burden. Relevance has been lowered by reductions in population coverage and content areas and the lengthening of the time between assessments. These actions have been necessitated, in part, by budgetary constraints. In addition, the case studies illustrate that tailoring assessments and dissemination to meet the needs of primary sponsors and other users enhances relevance.

Expanding Information Collection Activities

The high marks that NAEP received on relevance have been linked to its recent expansion of information on student background and school characteristics. The original purpose of NAEP was to serve as a benchmark for assessing national progress in education, but as experience with NAEP increased, greater demands were placed on it to provide data that would allow additional analyses to explain variations across states and levels of performance. With encouragement from the Congress and evidence from the public reviews it has received, NAEP has attempted to be responsive to these criticisms by adding several hundred data elements on student characteristics and attitudes and school environment. Similarly, FRSS represents new data collection efforts. FRSS has achieved its high level of relevance by filling specific gaps in information needed for policy purposes. In both cases, relevance has been increased by adding data collection activities.

Reductions in Information

Not surprisingly, reductions in information with respect to population coverage, content areas, and frequency of assessments—principally in response to budgetary constraints—have reduced the relevance of NAEP. Furthermore, while CCD has been criticized for its lack of relevance for answering questions about who is served in public and private schools, staffing, and resources and for examining the relationships between educational inputs, process, and outcomes, efforts within the department have been directed at reducing the amount of information collected through CCD. Even FRSS, which is intended to provide policy-relevant information that is not available elsewhere, has had to turn away requests. One reason is limited resources. Another reason is the need to demonstrate high priority or a mandate to justify clearance through OMB.

Tailoring the Information Request

The three cases also show that whether an information system is judged relevant may depend on how circumscribed the request is in terms of

contents and for whom it is collected. In this regard, the clearest case of high relevance is FRSS, for which typically a single requester has a narrowly constrained set of questions and studies are tailored to the particular interests of the sponsor. It appears that a key to the success of FRSS is that its structure optimizes the collaboration of the requester, center staff, and contractor responsible for collecting the data. NAEP and CCD have to serve many needs of diverse policymakers, increasing the likelihood that some questions may not be sufficiently answered.

Additional support for the importance of tailoring studies to the needs of particular constituents can be seen in NIE's mandated 1974 compensatory education study. By several accounts, this study is a successful instance of the production of high-quality information relevant to the congressional oversight process. Although a host of factors account for its success (for example, it was well funded and timely), congressional staff had worked closely with NIE staff before the mandate was proposed and throughout the execution of the study. In other words, given a limited number of constituents, substantial collaboration, and enough resources, this example, like the FRSS studies, suggests that the information needs of policymakers can be adequately addressed from currently available methodologies.

Flexible Dissemination

As our cases indicate, statistical information systems are often required to serve the needs of many constituents. NAEP and department staff have devised several noteworthy practices to increase the relevance of data produced by NAEP. In particular, NAEPIRS public-use data tapes have been developed to facilitate secondary data analysis, allowing researchers to answer questions that were not directly addressed in NAEP's formal publications. Judging from the number of copies of NAEPIRS in circulation, this data set is a considerable national resource.

CCD has been less well regarded in this area. While the center has maintained public-use tapes on elementary and secondary statistics, the last time they were listed in NCES Program and Plans was in 1980. Furthermore, although NCES sponsored efforts in the early 1970's to make data available through the Education Statistics Information Access System, this system appears to have been eliminated when NCES reduced dissemination services.

Timeliness

We noted earlier that timeliness can be thought of in two ways: the timeliness of assessment and the timeliness of reporting and disseminating of

other information products (for example, technical reports, bulletins, and public-use data tapes).

Timeliness of Data Collection

Recent changes in the assessment schedule for NAEP have made the intervals between assessments for each content area more regular, but information in some content areas is substantially out of date. Given time now required in the development of adequate survey and assessment instruments and the clearance process, data may be too old to be useful, unless they are acceptable to those who are using them. For some users, of course, FRSS may be a reasonable "fail-safe," if issues arise that require data sooner than can be obtained through ongoing activities.

Timeliness in Reporting

All three activities have been cited as having had problems in the timeliness of reporting with many of the same consequences as the delays in collecting information. However, the solutions are numerous. For example, within CCD, data are gathered by state education agencies and may not be submitted on schedule. This is less likely to happen in surveys like those of NAEP or FRSS, in which the contractor has control over the data collection schedule. Also, delays in the review and publication process have been noted in all three cases. For example, FRSS has avoided this problem by providing the requester with preliminary results and accompanying them with little explanatory material. The new "E.D. Tabs" reporting format extends this practice to data from other surveys. Other plans that are being developed within the center include the publication of early estimates.

Technical Adequacy

Technical adequacy refers to the appropriateness of the design and execution of a study, given the questions that have been posed. In addition, a technically adequate study does not contain serious flaws and is reported in sufficient detail to allow the readers to ascertain the credibility of the data upon which the results and conclusions depend.

The three cases show substantial variability in their technical adequacy. The differences can be organized around three interdependent practices: (1) data collection methodology, (2) quality-control procedures and the adequacy of reporting on the strengths and limitations of the data, and (3) the extent to which assessments of data quality are conducted.

Data Collection Methodology

NAEP and FRSS rely on representative samples (except for FRSS surveys directed at the universe of state education agencies) as their primary means of obtaining national estimates for policy-relevant questions. CCD relies on state administrative records. The technical adequacy of NAEP and FRSS was superior to that of CCD. The reasons for the differences in quality between survey-generated data and data obtained from administrative records are fairly obvious. Both surveys are administered by a grantee or contractor and use standard data collection instruments, minimizing the kind of error introduced by noncomparable data elements, as in CCD.

The FRSS and NAEP examples also show that practices vary according to the purpose of the data collection effort. For example, both use probability surveys (except for the census of state education agencies), but the precision of the estimates derived from them differs. Data derived from FRSS surveys are considerably less precise than NAEP-generated data because of differences in sample sizes. Given the differences in cost of these two types of survey, this is to be expected.

The cases also show that some technical difficulties and practical constraints are inevitable. For example, even though NAEP is a carefully planned survey, employing state-of-the-art sampling techniques, estimates of precision are approximated, geographic comparisons are limited to regional breakdowns, and results are sensitive to the test administration procedures. In other words, the improvements in some practices associated with NAEP will not resolve all problems, and in some cases they create new technical difficulties (for example, the modified matrix sampling technique increases efficiency but cannot be used with paced audio instructions).

Quality-Control Procedures

The technical adequacy of information can diminish at each phase of the data collection process. To counter this, various quality-control procedures are generally used. However, it is not possible to eliminate errors completely. Generally accepted research standards acknowledge this and advise that strengths and weaknesses should be examined and described.

Of the three activities, NAEP uses the most comprehensive set of quality-control procedures. For example, assessment materials for the most recent NAEP were reviewed by external consultants for bias; new material was tested, reviewed, revised, and retested prior to final selection; sampling frames were verified for accuracy; and schools were visited to

verify that data collection was undertaken as planned. Much of the high regard NAEP received for its technical adequacy derives from these quality-control procedures.

Performing quality-control checks is time consuming and requires adequate resources. Depending on the purpose of the study, this level of effort may not be appropriate for small-scale surveys like those conducted under FRSS. For FRSS, the quality-control procedures were less extensive. Survey questions were reviewed by center staff, representatives of CEIS, and OMB reviewers. According to a former project officer, this type of review avoided serious ambiguities in question wording, bias, and unnecessary respondent burden. As we have indicated, the precision of estimates was considered where appropriate and procedures were used (although they were not always well described) to account for other sources of bias (such as nonresponse). In general, quality control within FRSS appeared to be satisfactory, considering the relatively low budget associated with each survey.

Our review of CCD suggests indirectly that quality control was not sufficient, especially during the early phases of data gathering. Available evidence from the Education Data Improvement Project study shows that standard definitions were not adhered to in reporting data, information was not uniformly available across states, and estimates of the accuracy of data were generally not available for most data elements within CCD. The absence of well-documented quality-control procedures has threatened the credibility of CCD-generated data.

Another aspect of quality control is expert review. Since its mandate, NAEP has been developed under the surveillance of a standing panel of representatives from business, industry, and the general pubic as well as education practitioners, who meet up to three times a year to guide its purposes, specify domains to be examined and measured, examine sampling strategy, and review analysis and reporting plans. In addition, the legislation for NAEP requires a review at least once every 3 years and provides for public comment on how it is conducted and its usefulness. Although not all the recommendations resulting from these reviews have been followed (for example, recommendations on funding), much of the technical guidance has been followed. While it is not possible to separate the influence of the review panels, the caliber of contractor staff attracted to NAEP and selected through the panels of still other experts, and the technical and managerial skills of staff assigned to

monitor NAEP, it seems fair to attribute some of the high marks on technical adequacy to the panels and reviewers, who do sustained and regular work.

In contrast, CCD has been reviewed as part of general oversight of the center. Over the past 20 years, there have been several reviews, such as the 1986 review by the National Academy of Science's committee on national statistics. The concerns raised by the panels tend to be perennial. What they criticize has tended not to get fixed, although technical problems such as noncomparability of data elements could be corrected. Commendably, center staff responsible for the projections of educational statistics assessed the accuracy of their projection methods and assumptions in 1985. And the technical adequacy of CCD information was examined in a 1986 study of the State Education Assessment Center. Such technical self-assessments are exemplary but obviously differ from a full technical review.

FRSS has not received external reviews. Relatively speaking, survey research for brief, targeted questions is a well-established technique. That the system has functioned as well as it has with regard to technical adequacy (where this can be judged from available information) illustrates that the need for external reviews varies with the technical complexities of the activity.

Influences on Production and Quality, Agency Comments, and Our Response

In examining influences on the production and quality of information, we drew on our findings from the analyses of awards, the three case examples, budget analyses, interviews with department officials, and prior studies of education information. We believe that during the period of our study, the primary influences on the information that was produced and its quality were funding, mandates, changed priorities, and expert reviews. Other influences were congressional action other than mandates to collect information and changes in the leadership of the information-producing units.

More specifically, we found that the major influence on information production was severe reductions in funding levels. Information quality was directly and indirectly affected by funding levels. Congressional mandates played a notable role in information production—those activities that did not carry mandates were most vulnerable to funding declines. Changes in priorities were linked to rapid changes in leadership. Further, reviews by experts contributed to quality. During the period of our study, information production was also affected by the Paperwork Reduction Act and its interpretation and by shifts in priorities associated with changes in leadership. Any factor alone was generally but not always influential. Results were clearest when appropriate levels of funding, congressional guidance, expert reviews, and leadership priorities were all present and working in the same direction.

Fiscal Influences on Production

Because decreases in awards have affected information production, we examined the fiscal resources available for them. To assess changes in the size of the federal investment in education information when the federal budget was generally being reduced, we chose two benchmarks: (1) the change in the federal investment in education channeled through the department and (2) general changes in research, statistics, and evaluation. For the first benchmark, we assume that not every dollar of service should be matched by a penny or a dime for information but that the capacity to obtain information about education should increase or decrease somewhat as overall education expenditures increase or decrease. Therefore, we asked not only "How has the federal investment in education information changed over time?" but also "Has the investment been differentially affected by the overall cost-containment efforts?" The second benchmark examines differential effect relative to agencies with similar missions.

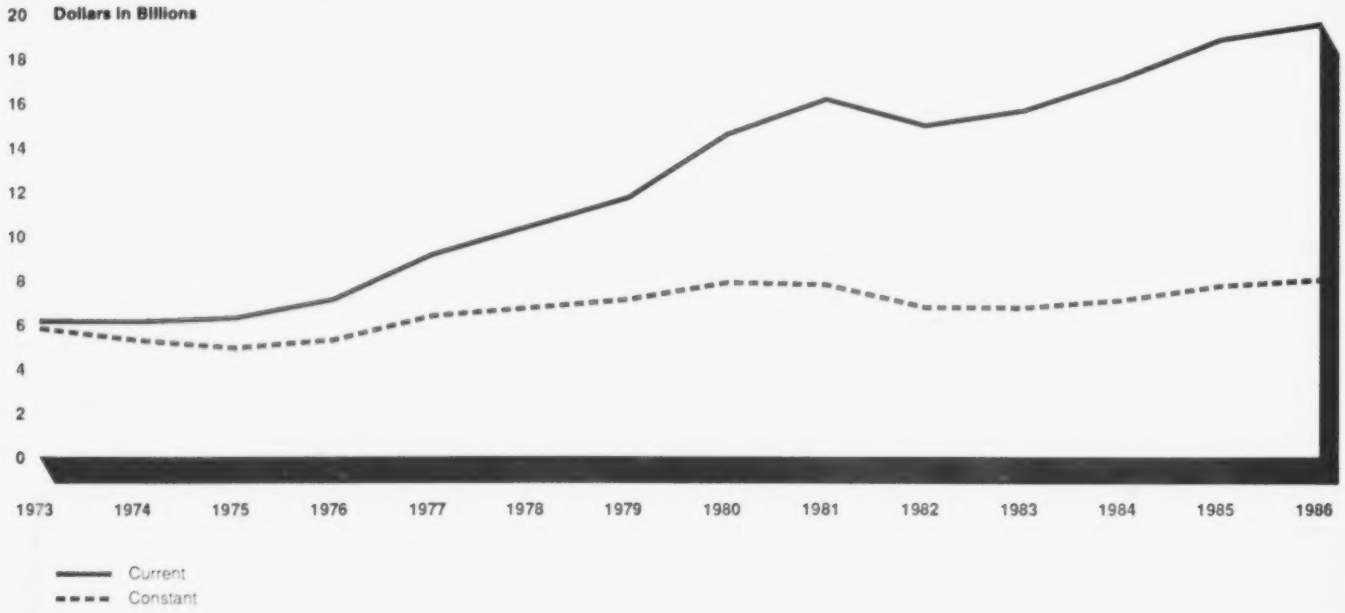
Our analysis of the trends in fiscal resources in 1973 to 1986 for NIE, NCES, and OPBE shows that the investment declined. Furthermore, reduc-

tions for education information were substantially greater than those for education as a whole.[1] Fiscal resources for educational research, statistics, and evaluation were cut more than in agencies with similar missions between 1980 and 1984.

The Department of Education as a Whole

Figure 4.1 shows that fiscal resources for the department increased in current dollars from approximately $6.1 billion in 1973 to $19.5 billion in 1986, an increase of 220 percent—38 percent in 1972 dollars. In contrast, the trends for fiscal support of the production of research and statistical and evaluative information are quite different.

Figure 4.1: Department of Education Obligations in Current and Constant 1972 Dollars for Fiscal Years 1973-86[a]



[a]Includes the Office of Planning, Budget, and Evaluation, the National Center for Educational Statistics, and the National Institute of Education. Constant 1972 dollars are computed by using the implicit price deflator for federal government purchases of goods and services as reported in Survey of Current Business.

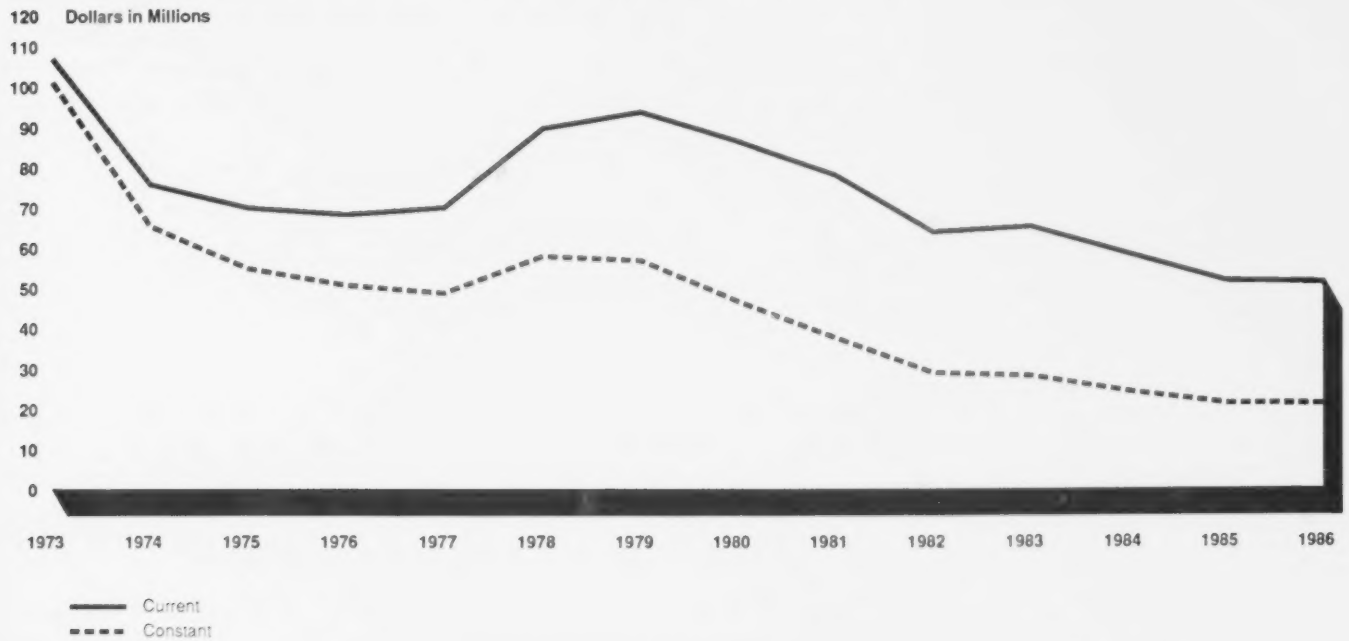
Source: Selected issues of Survey of Current Business for 1979-86; Department of Education data; and Office of Management and Budget, The Budget of the United States Government: Appendix (Washington, D.C.: 1975-86).

[1]Trend analyses began and ended for NCES in 1974 and 1975; for OPBE in 1986 and 1985.

Research

For NIE, figure 4.2 shows that current dollar amounts fluctuated over the period 1973-86 but the general trend was downward. That is, in 1973, NIE had current dollar obligations of roughly $107 million; by 1986, these resources had fallen to $51 million, a 52-percent decrease. When viewed in real terms, the trend depicted in figure 4.2 is even more dramatic: from 1973 to 1986, NIE experienced a 79-percent reduction in fiscal resources, despite the 38-percent increase in the overall federal investment in education.[2]

Figure 4.2: NIE Obligations in Current and Constant 1972 Dollars for Fiscal Years 1973-86[a]



[a]Constant 1972 dollars are computed by using the implicit price deflator for federal government purchases of goods and services as reported in Survey of Current Business.

Source: Selected issues of Survey of Current Business for 1979-86; National Institute of Education data; and Office of Management and Budget, The Budget of the United States Government: Appendix (Washington, D.C.: 1975-81 and 1983-85).

[2]In fiscal year 1986, OERI was reorganized. This may account for some of the reduction in resources for research, but between 1973 and 1985, resources for research had already been reduced by 79 percent.

Viewed from our second benchmark—changes in general support for research across the federal government—the funding level for NIE has fallen short of the support provided elsewhere. While the real purchasing power of overall federal research funds, excluding education, grew by 3.7 percent between 1980 and 1984, NIE's funding level dropped by 48 percent. During this period, the overall federal investment in education declined by 10 percent in constant dollars.

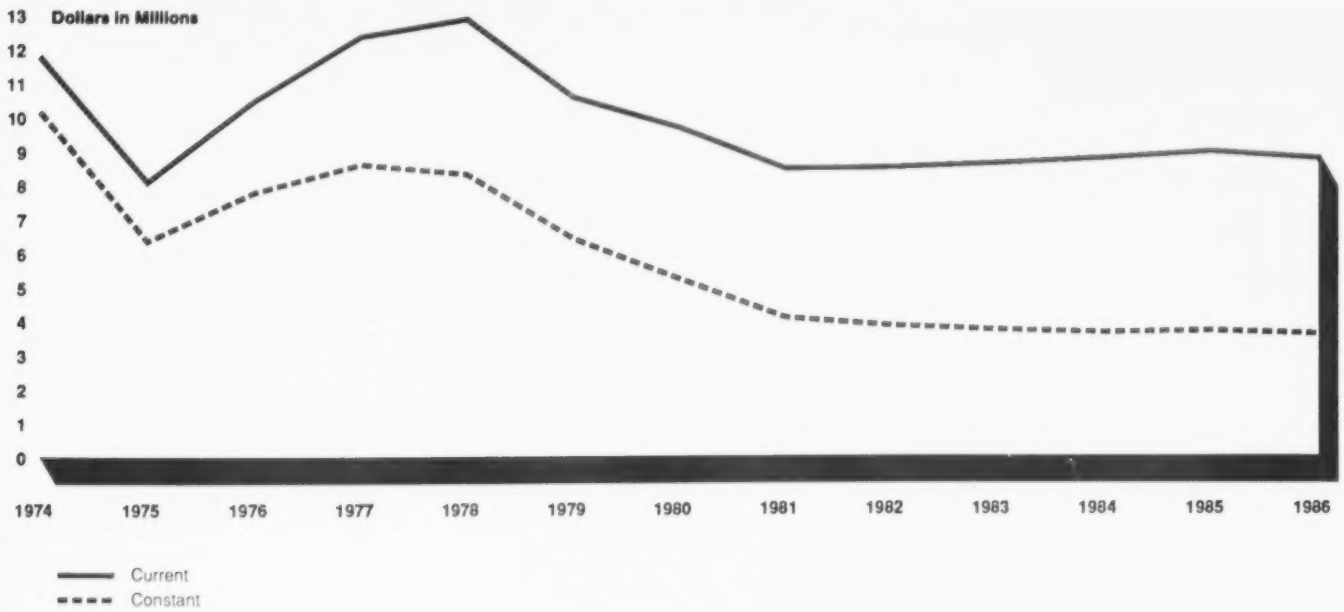
Statistics

Figure 4.3 charts similar information for NCES. The trend is more erratic, but the net result is roughly the same. In both current and constant dollars, fiscal resources for NCES declined.[3] Current dollar obligations in 1974 were $11.8 million; in 1986, the figure was $8.7 million, representing a 26-percent decrease. In real terms, resources for statistical activities declined from about $10 million in 1974 to about $3.6 million in 1986, a 65-percent reduction.

Further, NCES suffered greater losses in funding than other statistical agencies. In a study of federal statistical programs, the Congressional Research Service reported that fiscal year 1984 budgets for seven major federal statistical agencies, including NCES, were 18-percent lower overall in real terms than the fiscal year 1980 budgets. If we consider only NCES, however, we find that the inflation-adjusted budget—including salaries, expenses, and program funds—decreased from $14.9 million in 1980 to $10.7 million in 1984. This is a 28-percent decline for NCES alone. The 1980-84 budget cuts were, therefore, disproportionately large compared not only to the general decrease of 10 percent for education in real terms but also to cuts in other federal agencies involved primarily in statistical activities.

[3]The decline in the late 1970's can be partly explained by the congressionally mandated transfer of NAEP from NCES to NIE in March 1978. NAEP remained the responsibility of NIE until 1985, when it was transferred to CES in the reorganization of OERI.

Figure 4.3: NCES Obligations in Current and Constant 1972 Dollars for Fiscal Years 1974-86[a]



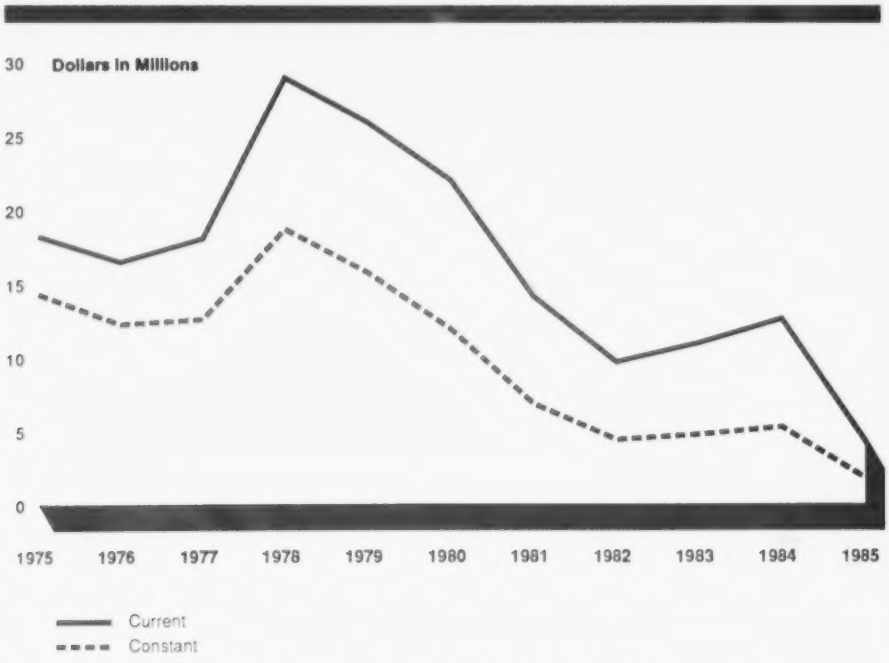
[a]NCES began operation in 1974. Constant 1972 dollars are computed by using the implicit price deflator for federal government purchases of goods and services as reported in Survey of Current Business.

Source: Selected issues of Survey of Current Business for 1979-86; National Institute of Education data; and Office of Management and Budget, The Budget of the United States Government: Appendix (Washington, D.C.: 1978-86).

Evaluation

For the Office of Planning, Budget, and Evaluation, our assessment is limited to funds for contract activities from 1975 to 1985.[4] As shown in figure 4.4, funding activities peaked in 1978 at $28.8 million and declined thereafter. The most dramatic decline was between 1980 and 1982. Over the 10-year period from 1975 to 1984, the decline was 31 percent in current dollars. In 1972 constant dollars, this represented a 64-percent decline.

Figure 4.4: OPBE Obligations in Current and Constant 1972 Dollars for Fiscal Years 1975-85



Source: Office of Planning, Budget, and Evaluation annual evaluation reports 1975-85.

Our second benchmark was derived from our January 1987 report on federal evaluation activity, in which we showed that resources for program evaluation declined by 37 percent between 1980 and 1984 across

[4]Figures are from the contract listings in the annual evaluation reports. We checked the figures for each fiscal year except 1985 against the annual evaluation report for the subsequent year. Since the 1986 report was not available, we used 1984 data rather than the unverified 1985 figures in our calculations of changes over time.

federal nondefense agencies.[5] During this period, the office showed a 63-percent decline in purchasing power for program evaluation activities.[6]

For research, statistical, and evaluative information, the patterns of decline in funding were consistent and precipitous. Further, the consistency of decline in resources across these three types of information suggests across-the-board reductions in information rather than a substitution of research for evaluative data or of statistics for either research or evaluation. Funding support for the production of all three general forms of information about the condition of education has decreased more than 60 percent in real terms since the early to middle 1970's.

For all three forms of education information, major declines between 1980 and 1984 ranged from 28 to 63 percent in 1980 constant dollars. In all three cases, the declines exceeded those observed for agencies and departments with similar missions. The greatest discrepancy, however, was for the research function; while federally supported research received, in general, a small increase from 1980 to 1984, funds for NIE were reduced by nearly half. This change led to the decrease in awards reported in chapter 2.

Fiscal Influences on Quality

The case studies show that fiscal resources influence quality. For example, in 1976, NAEP reduced the number of skill areas it routinely assessed from 10 to 5. When the assessment schedule was altered to accommodate budget cuts in 1980, increased demands were placed on NAEP staff to assist state and local agencies in the use of NAEP material. NAEP budgets have been supplemented by assessments conducted for other units within the department (see table III.1).

Reviews of NAEP have been critical of some of these changes, suggesting that skill areas should be expanded, assessments should be more frequent, and scope should be broadened to younger students, for example, or to higher-order cognitive skills. To accommodate these concerns, funding would have to be adjusted upward—that is, the proposed

[5]U.S. General Accounting Office, Federal Evaluation: Fewer Units, Reduced Resources, Different Studies From 1980, PEMD-87-9 (Washington, D.C.: January 23, 1987).

[6]Estimates differ on OPBE's funding level. Figures from OPBE's review of a draft of this report indicate a 28-percent decline in current dollars, or a 45-percent decline in constant dollars. OPBE based its figures on data obtained from other sources in addition to the annual evaluation reports.

changes are simply beyond the current capacity of the information-gathering activity.

Our review suggests that other forms of support that are indirectly affected by resources, such as technical assistance, influence the quality of information. Reviews of NAEP show that providing technical assistance to states and local areas has made information more relevant. And flexible dissemination formats (such as NAEPIRS) have been linked to increases in timeliness, relevance, and the impact of NAEP. The services provided by FRSS have also been shown to fill information gaps in a timely fashion. Of course, these support services divert funds away from other information-gathering activities.

For data collected within CCD, the evidence on the utility of support services and technical assistance is mixed. In examining the components of the pre-CCD data system, we found that NCES had devoted 5 staff years annually to developing and updating a series of handbooks that provided common definitions for education-related terms and data requirements under ELSEGIS. This aspect of the NCES portfolio was eliminated when staff assigned to this function retired. The last revision of the financial accounting handbook was published in 1980. Another component of pre-CCD assistance from NCES was on-site visits and workshops to assist state and local personnel in completing information requests. As fiscal resources within NCES declined, field visits were curtailed.

Although the early CCD experiences with technical assistance and other types of support have been unsatisfactory and have not appeared to rid CCD of persistent problems, we did find evidence in another department activity that federal assistance can have some positive effects on the quality of data reported from state and local education agencies—namely, the Title I Evaluation and Reporting System. At first, participation in TIERS was voluntary, and 5 years were devoted to implementing the system. Its use was mandated in the 1978 Education Amendments. TIERS ultimately produced data that were comparable in format across states, but the level of technical support, research and development, and state capacity-building was substantial, costing about $37 million between 1975 and 1981. That is, quality was improved but it took time and money.

Resources and Support

With regard to the direct effects of fiscal resources, one seemingly obvious corrective action would be to restore funding levels. Our three case

studies suggest that reductions in funding can influence aspects of quality but that funding must be examined in relation to the purposes of the data collection activity. Quality seems to be related not to dollars alone but, rather, to the match between required activities and required funds.

For example, the three case examples differ considerably in fiscal support. NAEP, a major activity within the center, commanded over $6 million in resources annually. CCD began in 1976 with $900,000 annually and was reduced to about $400,000 by fiscal year 1986; funds were withdrawn in fiscal year 1987. FRSS is operated at about $200,000 to $350,000 per year. Our review of quality shows that NAEP and FRSS, the most and least costly, received moderate to high marks for relevance, timeliness, and technical adequacy while CCD seems to have faltered under various levels of funding.

Furthermore, our review suggests that despite losses in purchasing power, NAEP has increased in technical adequacy and improved one aspect of its relevance by expanding its collection of background information on students, their attitudes, and school conditions. FRSS, despite its rather low level of expenditure, appears to have maintained an acceptable level of timeliness, relevance, and technical adequacy, although not all FRSS requests have been granted, because of budgetary constraints and other issues.

In contrast, CCD has not received sustained support. In 1987, state education agency data-gathering went unfunded. The consequences were clearly demonstrated in our review of the data that have been gathered. Some data elements appear to be consistent with NCES specifications, consistent over time (as indicated by small projection errors), and comparable across many states, but the system has been vigorously criticized with respect to its overall quality.

The criticism hardly seems surprising. CCD appears to have been underfunded for its purposes and expectations. In the mid-1970's, the department requested $10 million to $23 million for CCD, a fraction of what one study estimated would be necessary. Funding never exceeded $900,000 per year—less than $20,000 per state agency. Judging from the discrepancy between proposed and actual funding, the idea of having a common core of data that could be used by all relevant policymakers was not adequately implemented.

These cases show that while it is necessary to provide a stable source of funds, it may not be necessary to increase fiscal resources in order to

enhance the relevance, timeliness, and technical adequacy of information. Rather, funding levels should match expectations for the nature of the data to be collected and the intended uses of the information.

Congressional Mandates

In addition to establishing general statutory missions for information-producing units, the Congress has used specific legislation, conference reports, and hearings as ways of requesting information about the condition of education. NAEP, for example, is a congressionally mandated, ongoing activity. TIERS and the National Vocational Education Data System (NVEDS) were mandated and intended as ongoing information systems. The Congress has also asked for special studies and surveys. Examples include the 1974 NIE title I compensatory education study and the 1985 survey of teacher supply and demand.

Congressionally mandated activities can have a variety of influences on information-producing units. First, ongoing mandates can provide direction for the allocation of staff and resources. Their increasing influence has approximated management by legislation, particularly in NIE. As table 4.1 shows, about 79 percent of NIE's resources for research in 1984 went to legislatively required activities such as NAEP, ERIC, and laboratories and centers, in contrast to 55 percent in 1980. The requirements have typically not specified the research questions to be answered (except in terms of broad areas of emphasis) but have often directed operating procedures for the awards in the federal agency responsible for the study and funding authority.

Table 4.1: National Institute of Education Research Obligations in Fiscal Years 1980 and 1984

Activity	1980	1984
Mandated[a]	55%	79%
Discretionary	45	21
Total awards	**$73,625,000**	**$36,795,000**

[a]Includes National Assessment of Educational Progress, Educational Resources Information Centers, and the laboratories and centers.

Source: National Council on Educational Research annual reports, Washington, D.C., for fiscal years 1980 and 1984

Our review of the role of mandates as a request strategy suggests that they can protect an activity by ensuring a sustained level of support, even during periods of budget-cutting, but other activities may be affected by insufficient funding or staffing or both. Our analyses of shifts in priorities showed that information-gathering activities that do

not carry a mandate were more vulnerable when faced with fiscal constraints.

For example, in the late 1970's, the Bureau of Education for the Handicapped devised a multistudy, longitudinal evaluation plan to assess aspects of Public Law 94-142, the Education for All Handicapped Children Act. One component of this plan, a set of longitudinal case studies of the effect of the law, was initiated but was terminated early. Budget cuts, changes in priorities, the study design, and the lack of an explicit mandate were among the reasons offered for the termination.

Another type of vulnerability concerns the ability to collect data when studies are not mandated. In our study period, at least one FRSS request could not be honored: OMB required evidence that the information to be collected was requested under the mandated activity, but the proposed projects could not be justified on this ground. Further, OMB increased its efforts to reduce information collection by deleting data elements from OPBE evaluation questionnaires on the basis that these data were not legislatively required. Available instances suggest that unmandated information-gathering activities are vulnerable to changes in policies and priorities and to funding constraints.

Second, specially mandated studies have a large but transient effect on the operations of information-producing agencies. They are less predictable than ongoing activities such as NAEP. Depending on a study's size or timing, it can consume a substantial amount of a unit's resources, incurring opportunity costs with regard to other activities. A unit reduced in staff size 16-20 percent may not be able to expand in response to certain requests. Further, in some instances, the questions to be answered, timeliness, and methods to be used were explicitly stated in the request in ways that were difficult to carry out. This is not to say that some mandates may not have a positive influence by altering normal agency routine. For example, in one case the mandate directed that reports were to be sent without prior department review to the requesting group, thus reducing the department's influence on the study design and final report. This has been seen as shortening time and increasing relevance in the sense that departmental policy concerns and congressional interests did not have to be reconciled.

With regard to quality, NAEP has produced reports that are viewed as timely, technically adequate, and relevant descriptions of the condition of education. However, mandates alone are not sufficient to ensure that

high-quality information will be available when it is needed. For example, NVEDS was mandated in the Education Amendments of 1976. In 1983, OMB disapproved the department's request for data collection for the school year 1983-84, on the grounds of severe technical problems with the data. Here, the system was mandated with little consultation with the department, no resources were provided, and the time for reporting information back to the Congress proved to be unrealistic.

Expert Reviews of the Information-Gathering Function

The mission statements of the three units we examined are general, providing considerable latitude for the development of a portfolio of information. To ensure that these functions are being properly carried out, different review methods have been tried out, varying the authority given to the reviewers (policymaking versus advisory) and the regularity of review (periodic versus ad hoc). For example, until recently, NIE was guided by NCER, a policymaking group that was given broad authority and met regularly. In addition to assessing the NIE portfolio of activities and reporting to the Congress, it served as a policymaking body, setting priorities on dissemination, for example, and on equity-related activities.

From the reports that were issued, it is evident that NCER's review was susceptible to factors that may have little to do with the overall quality of NIE's work. For example, in 1980, NCER provided a detailed progress report to the Congress on activities that were highlighted as priorities in the Education Amendments of 1980.[7] That report also summarized available knowledge on ways to improve educational practice. The overall tone of this document was that NIE was responsive to priorities and taking a responsible approach toward identifying the agenda for future research. Two years later, under a new chairperson and with new members, the NCER report covering fiscal years 1981 and 1982 characterized NIE's efforts as "a flight from reality and from traditional moral values."[8] In reviewing NIE's previous work, the new NCER used as the principal evaluative criteria the choice of topics that had received research support, finding them objectionable.

[7]National Council on Educational Research, "Sixth Report of the National Council on Educational Research," Washington, D.C., fiscal year 1980.

[8]National Council on Educational Research, "Research in Retrospect," seventh annual report, Washington, D.C., 1982.

A variety of advisory groups have reviewed the statistical function within the department since the mid-1950's. In carrying out their advisory functions, these groups submitted reports that contained recommendations on ways of improving statistical activities. In fact, many of the problems the National Academy of Science's committee on national statistics identified in its 1986 report on NCES bear a striking resemblance to problems in a 1957 report issued by an advisory group. Given the persistence of the problems, the advisory panels do not appear to have been very influential in improving the quality of the data-gathering activities, despite the fact that early councils were composed of highly regarded individuals.

NAEP has been reviewed through a complex process that was built into legislation. Since its inception, NAEP has been guided by a panel of experts who have meet regularly and have decisionmaking powers. In addition, periodic reviews by experts (at least once every 3 years) were mandated. Available evidence suggests these reviews have had several positive influences on the contents, operation, and management of NAEP. In particular, one aspect of the mandated review was a stipulation that the users of NAEP be given an opportunity to comment on its relevance and utility. Although many forces were at work in shaping NAEP, the department summarized several comments from the field in its report to the Congress that resulted in alterations in NAEP that have been regarded as improvements in relevance and technical adequacy.

Similar improvements by the regional laboratories and national centers have resulted from reviews by one-time panels with advisory powers. For example, in the Education Amendments of 1976, the Congress established a 15-member panel of educators to review and report on the laboratories and centers. The panel members were appointed by the director of NIE from a field of 450 candidates nominated by organizations and associations in the education community. The panel reviewed each laboratory and center in terms of the potential value of the work that was proposed and its national significance, management, and track record. The Congress charged the panel with making recommendations for improving and continuing individual laboratories and centers.

Relative to other reviews, the scholarly manner with which the panel executed its charge is readily seen in its systematic method. Each laboratory and center was examined on common criteria, and projects were judged on their relevance to the mission of the center or laboratory and on their technical merits. The assessment was balanced, in the sense

that the strengths and weaknesses of the proposed projects were identified. The panel members articulated rationales for the importance of given focal areas, their contribution to education practice, and expected accomplishments. A subsequent review initiated by NCER did not assess the level of technical adequacy in the laboratory and centers products but showed that, collectively, they have contributed information in many of the same areas identified by the national reform studies, suggesting that the laboratories and centers were dealing with issues of national importance.

NAEP, national centers, and regional laboratories are major activities in the department. They consume a large share of the budgets allocated to NCES and NIE. Extensive review activities are therefore justified and appropriate. For activities such as FRSS, a different level of review may be warranted. With the exception of incomplete reporting practices, we judged the overall quality of FRSS as moderate to high, suggesting that elaborate review and external review are not always necessary. FRSS received little formal review besides the routine review of data quality by project monitors and through the recent competition of the contract. This seemed entirely satisfactory, given the level of funds allocated to this activity.

While expert reviews have positively influenced quality in general, there are limits to what can be expected, and quality-control activities may have to compete for funds.

Changes in Leadership and Staffing

In studies of the information-producing units, different directors and changes in senior staff were reported to have notably influenced the priorities and operations of the units. We were concerned in this report that changes in leadership in the education information units could similarly influence data production and quality. Therefore, we examined the changes and, where possible, attempted to identify their influences on education information.

Each of the information units changed in top management positions during the 1980's. In order to determine how widespread these changes were, we asked the units to provide us with the number of top management positions and the names and tenure of individuals serving in them from September 1980 to September 1986. Table 4.2 shows considerable turnover in each unit, although the data were not always complete.

Table 4.2: Management of Information Units in Fiscal Years 1980-86

		Head of unit		Top management		
Unit	Title	Number in position	Number acting in position	Number of positions	Number in position	Number acting in position
National Institute of Education	Director	4	3	5[a]	10	6
National Center Education for Statistics	Administrator	2	1	5	15[b]	2
Office of Planning, Budget, and Evaluation	Deputy undersecretary	4	1	9	17	[c]

[a]Represents a best estimate; one of the five, the associate director for field-initiated and internal studies, was not created until 1984.

[b]One position, assistant administrator for research and analysis, went unfilled from November 1980 to June 1982 and from May 1986 through at least January 1987, when we obtained our data.

[c]OPBE did not indicate any managers acting in positions.

Source: Department of Education, Office of Personnel and executive offices for the Office of Education Research and Improvement and the Office of Planning, Budget, and Evaluation.

NIE had a total of 7 different directors from 1980 to 1986, 3 of the 7 serving as acting director. At least 16 persons served in the 5 other top management positions, 1 of which was created in 1984. In six cases, individuals served on an acting basis or as special assistants.

The position of administrator for NCES was much more stable than the position of director of NIE. From 1980 to 1986, NCES had 2 top administrators and an acting director serving for 2 months in the transition between them. The turnover in the other statistical management positions, however, was similar to what occurred in NIE. There were 5 top management positions at NCES, 17 persons serving in them from 1980 to 1986. Two individuals served in an acting capacity.

The Office of Planning, Budget, and Evaluation is headed by a deputy undersecretary. One of the 5 persons in this position from 1980 to 1986 served in an acting role. Seventeen individuals served in the 9 top management positions during this period.

In summary, there have been many shifts in leadership in information-producing units since 1980. NCES has been the most stable, but all three units have had multiple changes in the top position. All three have also had multiple turnover in other top management posts, some managers leaving in a matter of a few months. Other positions have been vacant for various periods.

Staffing levels from roughly 1980 to 1986 are presented in table 4.3. During the period we examined, two types of change took place among

professional staff: a decrease in the total number of positions and staff turnover. In NIE, 91 persons were in excepted service on May 15, 1979, and 191 were in civil service positions on September 30, 1981. In 1986, there were 200 professionals—39 in excepted service and 161 in civil service positions. These changes represent declines of 57 percent and 13 percent for the excepted service and civil service, respectively.[9]

Table 4.3: Changes in Education Information Professional Staff Between Fiscal Years 1980 and 1986

				1986		
		Total				
Unit	Service	1980	1986	New hires since 1980	1980 staff remaining in 1986	1980 staff elsewhere in the department
National Institute of Education	Excepted	91[a]	39	33	6	0
	Civil	191[b]	161	114[c]	47	9[d]
Total		[e]	**200**	**147**	**53**	**9**
National Center for Education Statistics	Excepted	0	2	2	0	0
	Civil	123	96	50	46	19
Total		**123**	**98**	**52**	**46**	**19**
Office of Planning, Budget, and Evaluation	Excepted	0	0	[f]	[f]	[f]
	Civil	32	27	[f]	[f]	[f]
Total		**32**	**27**	[f]	[f]	[f]

[a]May 15, 1979.

[b]September 30, 1981.

[c]Within the Office of Educational Research and Improvement, 29 new hires were in the office of research, 47 were in programs for the improvement of practice, and 38 were in information services.

[d]Includes 4 staff who were assigned to the Center for Education Statistics.

[e]Since figures are from two different periods, calculating a total would be misleading.

[f]Data not available.

Source: Executive office of the Office of Educational Research and Improvement and GAO surveys of federal program evaluation activities for 1980 and 1984.

The turnover was high, especially in excepted-service positions. Of the 91 excepted-service employees in May 15, 1979, only 6 persons (7 percent) were still in the department in September 1986; none of these individuals had been reassigned to other units in the department. Of the 191 professionals in civil service positions, 47 remained and 9 of them (5 percent) were in positions elsewhere in the department or had been reassigned to the Center for Statistics.

[9]Excepted-service positions are unclassified civil service positions or those outside the competitive service, excepted from the requirements of competitive service by law, executive order, or commission regulation.

The number of staff at NCES fell 20 percent from 1980 to 1986: from 123 (0 excepted service, 123 civil service) in 1980 to 98 (2 excepted service, 96 civil service) in 1986. Turnover has been significant since 1980; only 46 of the 123 staff in 1980 still remained at NCES in 1986. These 46 make up a little less than half the current number. An additional 19 of the 1980 staff are now in positions elsewhere in the department.

For the Office of Planning, Budget, and Evaluation, our data are taken from our survey of federal program evaluation activities for 1980 and 1984 and are limited to the evaluation component. Within this unit, staffing declined by 16 percent from 1980 to 1984, from 32 to 27, and according to the staff, remained at about the 1984 level through 1986. There were no excepted-service employees until recently, when 3 were hired. Thus, there were many changes in upper management but there was little staff turnover at the lower levels, providing some stability to the unit.

In summary, we found overall declines in the number of professionals available to carry out the information-producing functions. Further, although the Office of Planning, Budget, and Evaluation was reportedly stable, turnover within the other units suggested less consistency in carrying out information activities and potential problems with staff knowledge of department operations and legal procedures.

The consequences of management changes can be found in the operations and priorities of the information-producing units. For example, one priority for identified research at NIE in 1978 was complex learning skills. To develop this new area, NIE commissioned papers to identify key questions for further research, and the papers were reviewed in 1980 in a conference bringing together researchers and practitioners. In 1981, when the first grant competition was held, more than 90 proposals were received and reviewed by panels of experts, which recommended 30 for funding. In 1981, however, the turnover of directors resulted in a hold on funding. The new director did not regard this area as a priority. No awards were made after the grant competition. In other words, the cycle for research funding from the initiation of a priority through the awards process to reporting the results may take many years, but the tenure of the director is typically less than a year—long enough to stop what was started but not long enough to see initiatives to completion, except where they are protected by congressional mandates, such as in the laboratories and centers and NAEP competitions.[10]

[10]Some awards for research on complex learning were eventually made under later NIE directors.

Paperwork Reduction

Congressional actions other than mandates for certain types of information have influenced the production of information, as when FEDAC was established in the 1978 Education Amendments to eliminate excessive detail and unnecessary information requests. In 1979, FEDAC began its reviews of education data collection in the Department of Health, Education, and Welfare. Within FEDAC's first 9 months of operation, the data burden was reportedly reduced by almost 13 percent (a reduction of about one million burden hours).

In 1980, the Congress passed the Paperwork Reduction Act (Public Law 96-511), whose key objective was to ensure that information requested by federal agencies was needed by an agency, unavailable elsewhere, and efficiently collected. The act appears to have had a substantial effect on the volume of paperwork required for federal operations. By fiscal year 1984, the department reported reductions of 35 percent from the 1980 base in reporting requirements and paperwork.

As we illustrated in previous examples, strict interpretation of paperwork reduction mandates has led to approval of data collection for some programs only when detailed legislative demands for specific data elements can be identified. We did not independently assess the extent to which low-quality or duplicative data collection was halted as a result of these acts and reduced an unnecessary data burden.

More direct reductions in information-gathering have been imposed in specific program legislation. For example, reporting and evaluation requirements for the major federally funded compensatory education program were made inapplicable with the passage of the Education Consolidation and Improvement Act of 1981 (Public Law 97-35). This act amended previous legislation in an effort to "eliminate burdensome, unnecessary, and unproductive paperwork and free the schools of unnecessary Federal supervision, direction, and control" (section 552). Further, the Deficit Reduction Act of 1984 (Public Law 98-369) set targets for savings in federal government operations. Areas in the act relevant to information-gathering include staff travel, the use of consultants, and publications.

Agency Comments and Our Response

The Department of Education agreed in general with the findings cited in a draft of this report. It believed our report will perform a valuable function by documenting a long-term decline in resources for research, statistics, and evaluation. (Its letter is reproduced in appendix IV.) However, the department raised three main concerns. First, while it

acknowledged the validity of many of the points raised for the period covered by the report, it believed that in recent years the department has "taken clear and decisive action to address most of the problems cited in the report." In particular, it noted that since 1985 each of the three information-producing units has been reorganized or its lines of authority and responsibilities have been altered. According to the department, the report does not accurately reflect the current situation.

Second, the department disagreed with our analyses of shifts in priorities. Specifically, it argued that increases in the proportion of funds allocated for dissemination are a positive step toward improving the utility of research, not a threat to new data collection, as we claimed; it asserted that there has been a significant degree of consistency and continuity in research priorities and that areas of study that we claimed were not being funded are currently supported under awards to laboratories and centers, "minicenters," an "urban superintendents' network," an intramural research project, and research grants.

Third, the department disagreed with our assessment of the implications of shifts in who is producing educational information and how its production is funded. The department agreed that funding patterns have limited its flexibility for determining who is funded but pointed out that 10 new awards were issued as part of the fiscal year 1986 field-initiated grants competition and that since fiscal year 1986 seven OERI fellowships have been filled by scholars, researchers, and practitioners. The department also argued that its procurement methods are an attempt to foster, rather than constrain, creativity and "invite alternative strategies and fresh ideas."

In its comments, the department also presented an extended discussion of the current situation, provided additional budget figures, and offered further documentation on the number and types of activities for years not covered in the draft report.

With respect to the department that our findings do not represent the department's current situation, we acknowledge that changes have been initiated since 1985 in the structure and operation of information-producing units. With regard to OPBE and CES, we explicitly mentioned many of the topics raised in the department's comments. Several other actions the department referred to were initiated as recently as March 1987 and could not have been incorporated into our assessment, since our data collection extended up to fiscal year 1986. Since we were unable to verify all new data that the department provided in its letters, we have not

altered our text or observations, except where it has been feasible to note updated information. A substantial proportion of the department's letter is devoted to describing current and planned activities.

It is too early to determine whether the organizational and procedural changes that have been initiated will adequately address the problems we identified in this report or new ones that the changes might create. Our analyses were based on the most current information available at the time of our study, and, for the most part, new data still are not available to assess the effects of the actions the department reported. None of the problems we reported occurred overnight, and many of them have been longstanding. Thus, while it is useful to have the additional information on the department's recent efforts, sustained attention will be needed to improve the status of education information.

Our report could serve as a partial baseline against which to assess the effects of departmental initiatives to improve the quality, relevance, and timeliness of education information. In reviewing the department's comments, however, we found no mention of any plans to assess progress empirically. It is too soon now to measure the effect of recent department efforts, but making formal plans for evaluation would be a most timely endeavor.

The department's second concern involved several points about our analyses of shifts in priorities. The department seems to have misconstrued our central point about the shift in emphasis toward service-oriented activities—notably dissemination—at the expense of new data collection. We did not, as the department contends, distinguish dissemination from research. Rather, we distinguish service-oriented activities like dissemination from new data collection. Further, while we agree that dissemination is a fundamental part of the research process, in light of the dramatic reductions in fiscal resources, more for dissemination means that there can only be less for new data collection. Dissemination can usefully remain a critical part of the research process only if the data that are being disseminated are relevant and timely. If resources were to decline further, there would be less new information to disseminate. Herein lies the threat that increased emphasis on dissemination poses for new data collection.

The department made two additional points about changes in priorities. It took issue with our example relating changes in leadership to changes in priorities. We stated in the report that the consequences can be felt in both the operation of and priorities for information-producing units. Our

data show that the instance we cited was not unique. Changes in research priorities associated with shifts in top leadership are acknowledged in the seventh annual National Council on Educational Research report to the President and the Congress. The chairman of NCER stated that since 1981 NIE's leadership has attempted to move away from the efforts of its predecessors and, by 1983, changes in research priorities were perceptible from a review of new grants.

Further, the department argued that funds were not available to permit significant changes in priorities, since the Congress restricted an increasing percentage of the NIE budget for institutional awards. We disagree. Our data in chapter 2 show that the resources that remained after mandated activities were funded were spent in very different areas in 1980 and 1985, our years of focus (see table 2.9).

The department also objected to our analysis of changes in areas of investigation, citing activities directed at gathering information on "many of the most important questions and issues in education today" (emphasis added). Forming centers that address education reform issues is an important step in addressing these contemporary issues for educators and policymakers. However, this step does not make up for the years when these and other topics were emerging as critical issues but no work was being done. Some way for keeping in step with the areas that are emerging and currently important is needed in education. Planning efforts should include review by experts to reduce gaps between the information that exists and the issues being dealt with by educators and policymakers. In other words, the department needs to ensure that efforts will be made to identify new and emerging issues and to implement information-gathering on these issues.

The department's third concern was with our assessment of the consequences of changes in who is producing information and how producing it is funded. Our analyses show an increase in the use of contracts and a decline in the number of awards issued to individual researchers. With regard to procurement practices, we acknowledge that NIE used many funding mechanisms to accomplish its work, including grants, contracts, purchase orders, and interagency agreements. However, the data we reported in chapter 2 indicate that the majority of the later work was funded by contracts. The department asserted that contracts are used when it wants to ensure that the substance of the work is clearly articulated and to provide for an appropriate level of accountability. However, we think that other consequences go along with using contracts, such as the type of review described. Furthermore, while it is admirable

to extend invitations to researchers to suggest alternative approaches—thereby fostering creativity—it must be remembered that the scope of the work (for example, the questions to be answered) is generally specified in requests for proposals, leaving less room for the imaginative researcher.

With regard to the reduction in the number of individual awards, the department noted that the fiscal year 1986 field-initiated research program resulted in 10 awards. Compared with 1984 and 1985, when no awards were made (see table 2.1), this is clearly an improvement, but it still represents an 83-percent decline from the number of unsolicited proposals awarded in 1980. Therefore, we believe that while there have been some signs of restoring this aspect of the department's information portfolio, fewer opportunities for "fresh ideas" from the field are available now than in the late 1970's and early 1980's.

Appendix I

Random Samples of NIE and OPBE Activities for Fiscal Years 1980 and 1985

Table I.1: Random Sample of NIE Activities for Fiscal Year 1980[a]

Activity	Recipient	Cost	Period covered by award	Type	Study area	Funding mechanism
To examine microprocessing technology in schools	Bank Street College, New York, N.Y.	$80,764	9/80–6/81	New data collection	Computer technology	Contract
Research on the psychological process underlying reading comprehension	Carnegie-Mellon University, Pittsburg, Pa.	$68,000	9/80–9/81	New data collection	Reading and writing	Grant
To assess cognitive development of high school geometry students	University of Chicago, Chicago, Ill.	$49,908	6/80–8/81	New data collection	Math and science	Grant
To identify the influence of mothers, parenting skills for preschool children	Verbal Interaction Project	$62,124	9/80–9/81	New data collection	Parents and family	Grant
To improve plans for in-service teacher education in San Marcos through research	Southwest Educational Development Lab, Austin, Texas	$27,000	9/80–9/81	New data collection	Teachers	Contract
To find ways to increase evaluation productivity for decisionmaking and cross-study management	Huron Institute, Cambridge, Mass., and Arlington, Va.	$101,250	5/80–5/83	New data collection	Miscellaneous	Contract
To inform state-level education policymakers and others about recent finance developments	Education Commission of the States, Denver, Colo.	$247,137	6/80–5/81	Dissemination	School finance	Contract
To survey and assess the literature and theory of the private organizations of teachers	Institute for the Study of Contemporary Social Problems, Seattle, Wash.	$11,786	6/80–9/80	Synthesis	Teachers	Grant
To study the organization of magnet schools	University of Wisconsin, Madison, Wisc.	$38,046	12/79–12/80	New data collection	Desegregation	Grant
To conduct and provide technical assistance	Dingle Associates, Washington, D.C.	$63,043	12/79–9/80	Technical assistance	Dissemination	Contract
To support experimental activities that demonstrate ways of increasing numbers of minorities and women in advanced educational research	MALDEF, San Francisco, Calif.	$78,000	9/80–9/81	Demonstration	Minorities	Grant
ERIC Clearinghouse for Junior Colleges	University of California, Los Angeles, Calif.	$202,477	10/80–10/81	Dissemination	ERIC	Contract
Dissemination capacity-building grants	Indiana Department of Public Instruction, Indianapolis, Ind.	$79,812	5/80–5/81	Dissemination	State capacity-building	Grant
To provide training and supportive services to NIE's education policy fellows	George Washington University, Washington, D.C.	$30,650	9/80–8/81	Training	Education policy	Grant
Historical inquiry of teachers' perceptions of their profession 1840-65	Lynn Cadwallader, Amherst, Mass.	$9,680	8/80–1/81	Data analysis	Teaching	Grant

[a]Fifteen activities were randomly selected from a list of 476 items in the 1980 NCER annual report.

Table I.2: Random Sample of NIE Activities for Fiscal Year 1985[a]

Activity	Recipient	Cost	Period covered by award	Type	Study area	Funding mechanism
Preplanning activities for new teaching and reading centers	Harvard University, School of Education, Cambridge, Mass.	$530	Not listed	Planning	Teaching	Purchase order
Microcomputers and literacy	Harvard University, Cambridge, Mass.	$317,639	9/30/83-9/29/86	New data collection	Computers	Grant
Children's early understanding of numbers	Carnegie-Mellon University, Pittsburgh, Pa.	$154,833	12/1/83-11/30/86	New data collection	Mathematics	Grant
Using research knowledge to improve teacher education	George Mason University, Fairfax, Va.	$31,802	Not listed	Dissemination	Teaching	Contract
Using research knowledge to improve teacher education	Utah State University	$23,150	Not listed	Dissemination	Teaching	Contract
Teacher education demonstration program	University of Georgia, Athens, Ga.	$450	10/1/85-9/39/86	Dissemination	Teaching	Contract
The role of schools in education	Michigan State University, Institute for Research on Teaching, East Lansing, Mich.	$218,755	9/30/83-3/30/86	New data collection	Education standards	Contract
Sixth annual area seminars for graduate students	Courtesy Associates, Washington, D.C.	$13,422	2/14/85-6/1/85	Dissemination	Seminars	Contract
A study of targeting practices used in the chapter I program	SRA Technologies, Mountain View, Calif.	$750,000	8/1/85-3/31/87	New data collection	Disadvantaged	Contract
Research dissemination through telecommunications	Source Telecomputing Corp., McLean, Va.	$19,800	3/1/85-3/1/86	Dissemination	Department communication	Purchase order
ERIC document reproduction service	Computer Microfilm International, Arlington, Va.	$442,779	6/29/79-4/30/85	Dissemination	ERIC	Contract
State technology leadership project	Council of Chief State School Officers, Washington, D.C.	$129,707	7/1/85-6/30/86	Dissemination	Education Technology	Contract
Second lab review meeting	Dingle Associates, Washington, D.C.	$39,030	3/22/85-6/1/85	Competition panel	Laboratory review	Contract
Technology task force writers' meeting	Courtesy Associates, Washington, D.C.	$7,640	Not listed	Meeting	Education technology	Contract
Expert witness in office of civil rights enforcement action	Robert Calfee, Stanford University, Stanford, Calif.	$19,572	9/12/84-3/31/85	Witness	Civil rights enforcement	Purchase order

[a]Fifteen activities were randomly selected from a list of 168 items in the 1985 NCER annual report.

Table I.3: Random Sample of OPBE Activities for Fiscal Year 1980[a]

Activity	Recipient	Fiscal year cost	Period covered by award	Type	Study area
Study of parental involvement in various legislatively mandated programs	System Development Corp., Santa Monica, Calif.	1978 $639,158 1979 $1,309,423 1980 $601,310	9/78–4/81	New data collection	Parents
Analysis of issues in ESEA title I evaluation and reporting	RMC Research Corp., Mountain View, Calif.	1978 $398,755 1979 $259,104 1980 $320,315	7/78–4/81	Issue analysis	Disadvantaged
Study of the use and effects of alternative measures of comparability	Applied Urbanetics, Washington, D.C.	1979 $200,000 1980 $177,140	9/79–6/81	New data collection	Disadvantaged
Operation of ESEA title I technical assistance center, region I	RMC Research Corp., Portsmouth, N.H.	1979 $676,713 1980 $882,992	10/79–9/81	Technical assistance	Disadvantaged
Operation of ESEA title I technical assistance center, region VIII	American Institute for Research, Palo Alto, Calif.	1980 $1,660,715	10/79–9/81	Technical assistance	Disadvantaged
Operative ESEA title I technical assistance center, region VIII	Northwest Regional Laboratory, Portland, Ore.	1979 $708,200 1980 $867,787	10/79–9/81	Technical assistance	Disadvantaged
State refinements to ESEA title I evaluation and reporting system	Rhode Island Department of Education, Providence, R.I.	1980 $33,245	12/79–2/81	State capacity-building	Disadvantaged
State refinements to ESEA title I evaluation and reporting system	Arkansas Department of Education, Little Rock, Ark.	1980 $30,174	11/79–10/80	State capacity-building	Disadvantaged
State refinements to ESEA title I evaluation and reporting system	Pennsylvania Department of Education, Harrisburg, Pa.	1980 $39,327	1/80–3/81	State capacity-building	Disadvantaged
Support of the higher education panel	National Science Foundation, Washington, D.C.	1975 $63,442 1976 $69,900 1977 $70,000 1978 $77,190 1979 $77,250 1980 $141,262	7/74–9/81	Panel	Higher education
Assessment of the Strengthening Developing Institutions Program	Research Triangle Institute, Durham, N.C.	1980 $127,561	9/80–9/82	New data collection	Higher education
Assessment of the ESAA-TV program by examining its production, distribution, and financing	Abt Associates, Cambridge, Mass.	1977 $87,986 1978 $185,277 1979 $180,491 1980 $6,882	9/77–1/81	New data collection	Desegregation

(continued)

Activity	Recipient	Fiscal year cost	Period covered by award	Type	Study area
Evaluation of title I of the Library Services and Construction Act	Applied Management Sciences, Silver Spring, Md.	1978 $405,500 1979 $154,600 1980 $25,862	9/78–1/81	New data collection	Miscellaneous
Exploratory evaluation of follow-through service projects	Applied Management Sciences, Silver Springs, Md.	1980 $29,873	9/79–12/80	New data collection	Disadvantaged
Field readers, small purchase orders, printing, travel, etc.	Miscellaneous	1980 $89,326	10/79–9/80	Support	Miscellaneous

[a]All activities were funded by contract. Activities associated with a particular fiscal year often received funding in other fiscal years as well. Fifteen activities were randomly selected from a list of 119 items shown as funded or ongoing in fiscal year 1980 in the annual evaluations report for fiscal year 1980.

Table I.4: Random Sample of OPBE Activities for Fiscal Year 1985[a]

Activity	Recipient	Fiscal year cost	Period covered by award	Type	Study area
National longitudinal evaluation of the effectiveness of services for language-minority, limited-English-proficient students	Development Associates, Arlington, Va.	1983 $1,514,000 1984 $2,619,352	12/1/82-12/30/86	New data collection	Language minority
Addition of Native American students with limited English speaking ability to the national longitudinal evaluation	Development Associates, Arlington, Va.	1985 $438,591	9/17/85-12/16/86	New data collection	Native Americans
Assess ECIA chapter 1 grant program for the handicapped	Research and Evaluation Associates, Chapel Hill, N.C.	1985 10,000 1984 263,091	10/1/84- 12/31/85	New data collection	Handicapped
A study to document the process and procedures that 9 states will develop to implement the Carl D. Perkins Vocational Education Act	E.H. White, Washington, D.C.	1985 $160,000	8/23/85-8/22/86	New data collection	Vocational education
Provide support services, including data collection and analysis pertinent to department policy issues	Advanced Technology, McLean, Va.	1985 $261,827	10/1/82-9/30/85	Analysis and support	Department policy issues
Study of recent trends in the Vocation Rehabilitation Program's caseload and placement patterns	Ecosometrics, Bethesda, Md.	1985 $81,000 1984 $534,000	9/1/84-1/30/87	New data collection	Rehabilitation
Identify and analyze factors contributing to the rapid growth of proprietary rehabilitation services	Berkeley Planning Associates, Berkeley, Calif.	1985 $438,795	7/1/85-6/30/87	New data collection	Rehabilitation
Purchase proprietary data on freshman college students for higher education research survey on fall enrollments	HERI, University of California, Los Angeles	1985 $209,715 1984 $138,650	6/29/81-4/1/87	New data collection	College enrollment
Provide the department, from the higher education panel, policy-relevant quick-response surveys from a sample of institutions of higher education	American Council on Education, Washington, D.C. (funds transfer to NSF)	1985 $140,000 1984 $130,000	10/1/82-9/30/86	New data collection	Higher education
Provide the department secondary data collection and quick-response analytical capability for policy budget and planning	Applied Systems Institute, Washington, D.C.	1985 $300,000	4/1/83-3/31/86	Analysis and support	Higher education

(continued)

Activity	Recipient	Fiscal year cost	Period covered by award	Type	Study area
Analyze and synthesize, through the Education Analysis Center, pertinent past and current research and evaluation studies; analyze existing relevant and complex data bases; develop models; conduct case studies; and perform literature searches and reviews	Pelavin Associates, Washington, D.C.	1985 $340,631	10/1/82-9/30/85	Analysis and support	Departmental policy issues
Analyze data and provide technical support for on-call processing and education analysis capability	Decision Resources Corp., Washington, D.C.	1985 $500,000	7/1/83-12/31/85	Analysis and support	Departmental policy issues
Describe and survey longitudinally immersion programs for bilingual students	SRA Technologies, Mountain View, Calif.	1985 $725,000 1984 $500,000	10/1/83-9/30/88	New data collection	Bilingual
Survey the attitudes and education preference of parents of several groups of children speaking minority languages, linking the sample to NAEP so that parental attitudes can be related to educational progress	Educational Testing Services, Princeton, N.J.	1985 $500,000	9/30/85-12/30/86	New data collection	Language minority
Analyze the theoretical and public policy roots of benefit-cost analysis in rehabilitation; examine supplements to the R-300/911 data base; write proposals to develop practical plans, based on existing data, for models of benefit/cost analysis	Rutgers University, New Brunswick, N.J.	1984 $170,920	9/25/84-9/30/85	Analysis	Rehabilitation

[a]All activities were funded by contract. Activities associated with a particular fiscal year often received funding in other fiscal years as well. Fifteen activities were randomly selected from a list of 26 items shown as funded or ongoing in fiscal year 1985 in the annual evaluation report for fiscal year 1985.

Educational Survey Changes and Proposed Information Collection

Table II.1: Primary, Elementary, and Secondary Education Surveys and Changes 1980-83

Survey	Frequency	Description	Change
Preprimary school enrollment	Biennial	Sample of children 3-5 years old, enrolled and not enrolled by age, sex, race, Spanish origin, region, educational levels of parents, employment status of mother, household income, level of enrollment (nursery school or kindergarten), public or nonpublic school status and length of attendance daily (all or part of a day)	Temporarily shifted to annual cycle
Public elementary and secondary schools	Annual CCD fall survey	Number of school districts, pupils, staff, and high school graduates and financial receipts, expenditures, and teachers' salaries; includes the 20 largest cities and outlying areas	Changed in 1982 to estimates of financial data and salaries; eliminated in 1983
Nonpublic elementary and secondary schools	Periodic	All schools and number of pupils and teachers; finances by school affiliation and grade	Noncomparable survey was conducted in subsequent year; no other surveys appear to have been conducted
State school system	Biennial	Organization, staff, pupils, and finance of public schools in the 50 states, the District of Columbia, and extra-continental areas; selected historical trends	Appears to have been eliminated
Offerings and enrollments in secondary schools	Occasional	Courses offered and number of pupils in a sample of high schools	Planned for 1983 and 1985 but no record of its being conducted
Revenues and expenditures	Annual CCD	Current expenditures of school districts for major functional categories; revenues, capital outlay, and debt services figures also included; covers universe of school districts for most years	Increased and more comprehensive coverage required for administration of department programs
State education agency operations	Annual	Revenues by source and expenditures and employees by agency function, including approval of programs, consultative services, distribution of resources, general management, internal services, planning and research, operation of schools, and vocational rehabilitation; data are reported for states grouped by public school membership	Appears to have been delayed or eliminated
State public school finance profiles	Biennial	Pupils, teachers, and other characteristics of all school districts' resource allocation procedures, measures of wealth, and costs of education services; program characteristics in relation to pupil need and financial capabilities	Planned for 1983 and 1985 but not conducted
Local school districts	Annual CCD	Names, counties, states, principal administrators, number of schools, grade spans, enrollments	Dropped principal administrator listing
State education agencies	Annual	Names, titles, and phone numbers of education officials for each state	Changed to periodic in 1982 but not listed in 1983
Number of persons with limited proficiency in English	Occasional	Estimates of the number of children and adults with limited English proficiency by age, residence, language, family income, and country of origin; projections of the number for the next 5, 10, 15, and 20 years	Planned for 1983 but not listed in 1983

(continued)

Survey	Frequency	Description	Change
Teachers' qualifications in second language	Occasional	Estimates of the number qualified or partially qualified to teach in languages other than English and English as a second language and the number in projects supported by ESEA title VII, the Bilingual Education Act	Planned for 1981 but not listed in later years
Teacher and administrator supply and demand	Annual to mandate	Estimates of the number of college graduates added to the supply, local education agency sample of numbers of teachers employed and laid off, teaching openings and current and anticipated shortages by level and field of instruction	More detail added in 1981; changed to periodic in 1982
Student and staff characteristics in local school districts	Periodic	NCES and Bureau of the Census collection of data on receipts by source and expenditures by purpose from state education agencies for the entire universe of school districts or samples, depending on need: universe data are available for fiscal years 1978-79	Changed to annual in 1982
1980 decennial school data	Mandated	Tabulations of the 1980 decennial census for all 16,000 U.S. local school districts, including population, population characteristics, housing, and so on within school district boundaries on data tapes for public use, a set of maps showing the 1980 Census geography and school-district boundaries, a geographic cross-reference file that identifies each 1980 Census geographic unit completely or partially enclosed by school district boundaries, and technical information needed by users of the maps and data tapes; the product will also include data on sampling errors and other information needed for extended analysis	Not applicable

Source: Adapted from The Condition of Education, part 2, Programs and Plans (Washington, D.C.: U.S. Government Printing Office, 1980-83).

Table II.2: Proposed Elementary and Secondary Information Data System

Field	Area	Data
Universe	Public school districts	A school district census: identification and type
	Public and private schools	A census of all public and private schools: identification, enrollment, staffing, and type
	State aggregate fiscal data	Revenues, expenditures, and average daily attendance
	State aggregate nonfiscal data	High school graduates, enrollment by grade and instructional and noninstructional staff
	Early estimates	New to the system: universe component
Sample	Public school districts	
	Public and private schools	
	Public and private school teachers	
	Public and private school libraries	
	Public and private school administrators, new to system	
	Parents of NAEP students, new to system	
	Student performance (NAEP)	
	Student progress over time (longitudinal studies)	
	Public school finance, under development	
	Teacher leavers, new to system	
	Policies and practices, new to system	
	Early estimates, new to system (sample component)	

Descriptive Data on NAEP and CCD

Table III.1: NAEP Funding History 1964-85[a]

Fiscal year	Carnegie Corporation	Fund for the Advancement of Education	Ford Foundation	New federal funds	Other[b]	Total	1972 constant dollars
1964	$112,500					**$112,500**	
1965	260,000					**260,000**	
1966	70,400	$496,000				**566,400**	
1967	640,000	640,000				**1,280,000**	
1968	1,000,000			$372,000		**1,372,358**	
1969	350,000		[illegible],000	1,000,000		**1,910,000**	
1970	350,000			2,400,000		**2,740,000**	
1971				4,500,000		**4,500,000**	
1972				6,000,000		**6,000,000**	$6,000,000
1973				6,000,000		**6,000,000**	5,671,078
1974				5,500,000		**5,000,000**	4,745,470
1975				4,630,000		**4,630,530**	3,631,788
1976				4,900,000		**4,900,000**	3,640,000
Transition quarter					1,500,000		1,500,000
1977				4,600,000		**4,000,000**	3,203,343
1978				4,800,000	$62,416	**4,862,416**	3,141,096
1979				3,969,348	917,667	**4,887,015**	2,965,422
1980				3,880,000	459,197	**4,339,197**	2,342,979
1981				3,880,000	1,154,050	**5,034,050**	2,424,880
1982				3,880,000	740,162	**4,620,162**	2,086,794
1983				2,500,000		**2,500,000**	1,077,122
Transition quarter					1,380,000		1,380,000
1984				4,345,029[c]		**4,345,029**	1,801,422
1985				5,735,480[d]	271,231	**6,006,711**	2,439,769
Total	**$2,782,900**	**$1,136,000**	**$560,000**	**$75,772,215**	**$3,604,723**	**$83,855,838**	

[a]NAEP was funded by the Office of Education from 1968 to 1973 with a total $20,272,358, NCES in 1974 through part of 1979 with a total of $28,408,484, and NIE after March 1979 with a total of $30,634,717 in direct NAEP funds and about $1,067,417 in NAEP-related activities. Thus, the total direct cost is $76,840,161, not including other direct or indirect awards made to the National Commission of the States and ETS for NAEP-like activities from agencies such as the National Science Foundation and the Department of Defense.

[b]Includes "miscellaneous income," revenues from publication sales, carryover from prior years, funding from other agencies through awards to ECS and ETS for NAEP, and the like—for example, $25,358 in 1979 from the Food and Drug Administration for a label-reading assessment, $434,923 from the Department of Labor for an assessment of the 1981 career and work knowledge of 17-year-olds out of school, and $271,231 in 1985 from the National Science Foundation to study higher-order skills.

[c]Includes $352,024 from NIE for the young adult literacy assessment and $113,005 from the Office of Bilingual Education and Minority Languages Affairs for the language minority student assessment.

[d]Includes $1,475,480 from NIE for the young adult literacy assessment, $350,000 from the Office of Bilingual Education and Minority Languages Affairs for the language minority student assessment, and $30,000 for analysis of Education Consolidation and Improvement Act chapter I data collected by NAEP.

[e]Total inflated by fiscal year carryover; each year represents that year's resources.

Table III.2: Testing Pattern for NAEP by Testing Year 1969-86

Content area	1969-70	1970-71	1971-72	1972-73	1973-74
Science	•			•	
Writing	•				•
Citizenship	•				
Reading		•			
Literature		•			
Music			•		
Social studies and citizenship			•		
Mathematics				•	
Career and occupational development					•
Art					
Basic life skills					
Health					
Energy					
Consumer skills					
Literacy					
Computer competence					

1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81[a]	1981-82	1982-83[a]	1983-84	1984-85	1985-86
		•					•				•
				•					•		
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										•	
											•

[a]No data collected.

Table III.3: NAEP Target Groups by Testing Year 1969-86

Target group	1969-70	1970-71	1971-72	1972-73	1973-74
Age					
9	•	•	•	•	•
13	•	•	•	•	•
17 in school	•	•	•	•	•
17 out of school	•	•	•	•	•
26-33	•	•	•	•	[d]
Grade					
4					
8					
11					

Table III.4: Description of CCD for Elementary and Secondary Education

Component[a]	Characteristic
I. Public school universe file	Information on all public elementary and secondary schools in operation during a school year by school type, grade span, fall membership, and number of classroom teachers, available at school level
II. Local education agency universe file	Information aggregated to the state level for the universe of local education agencies by type of agency and operating, fiscal, and control status
III. Local education agency nonfiscal report	Information aggregated to the state level on local education agencies by number of schools in operation, membership, and full-time-equivalent teachers and other staff
IV. Public school district finance report	Data on local education agencies by average daily attendance, source of revenues, and expenditures by function
V. State aggregate nonfiscal report	Fall school enrollment by grade level, full-time-equivalent staff by major category, and high school
VI. State aggregate fiscal report	Annual census of state agencies that provide resources to local education agencies, aggregated to the state level, on average daily attendance, school district revenues by source, and expenditures by major function

[a]All components consist of data from an annual census of state education agencies.

1974-75	1975-76	1976-77	1977-78	1978-79	1979-80	1980-81[a]	1981-82	1982-83[a]	1983-84	1984-85	1985-86
•	[b]		[c]	•	•		•		•		•
•	•		[c]	•	•		•		•		•
•	•	•	•	•	•		•		•		•
•	•				•						
	•	•								•	
									•		•
									•		•
									•		•

[a]No data collected.

[b]Social studies and citizenship only.

[c]Mathematics only.

[d]Career and occupational development only.

Comments From the Department of Education

UNITED STATES DEPARTMENT OF EDUCATION

OFFICE OF THE ASSISTANT SECRETARY
FOR EDUCATIONAL RESEARCH AND IMPROVEMENT

MAY 15 1987

Mr. Richard L. Fogel
Assistant Comptroller General
Human Resources Division
General Accounting Office
Washington, D.C. 20548

Dear Mr. Fogel:

Thank you for the opportunity to review the draft GAO report, "Education Information: Changes in Funds and Priorities Have Affected Production and Quality." In general, we agree with the findings cited in the report. We also believe that the final report will perform a valuable function by documenting a long-term decline in resources appropriated for education research, statistics and evaluation. We did, however, identify some major misconceptions and errors in fact. These are discussed in the enclosed document.

Sincerely yours,

Chester E. Finn, Jr.
Assistant Secretary and
Counselor to the Secretary

Enclosure

U.S.Department of Education's

RESPONSE TO THE GAO DRAFT REPORT,

"Education Information: Changes in Funds and Priorities

Have Affected Production and Quality"

We read with great interest and agree with much of GAO's analysis of the decline in appropriations for education information. We acknowledge the validity of many points raised by GAO for the period covered by the report. Since early 1985, however, the Department has taken clear and decisive action to address most of the problems cited in the report. What follows are our comments on the report, as well as a description of the current state of affairs within the Department. Since in many cases significant positive changes have been made, we strongly suggest that GAO's final report acknowledge and describe those changes. Else even a report that is generally accurate with regard to the period to which it applies may be sorely inaccurate with regard to the present situation.

OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

REORGANIZATION OF OERI

Secretary Bennett's concern with the quality of the Department's research and statistics programs led to planning for improvements beginning in the first months of 1985 and ultimately to the Fiscal Year 1986 reorganization of the Office of Educational Research and Improvement (OERI). He realized that the Department's research and statistics

programs had not achieved their full potential. Under Secretary Bennett's leadership, the OERI reorganization was designed to improve the quality of education research and statistical information by realigning program functions, establishing clearer lines of authority, establishing quality control procedures, and strengthening and expanding OERI's peer review system. The 1986 OERI reorganization also served to delineate more clearly the responsibilities of OERI and those of the Office of Planning, Budget, and Evaluation (OPBE).

While we basically concur with the report's findings as to the past, we are concerned that throughout the report reference is made to current OERI program units by name, even though the report covers a period of time before these units existed.

See comment 1.

Specifically, the "Office of Research" (OR), which was created by the Fiscal Year 1986 OERI reorganization is a major focus of the draft report. Yet, as a result of that reorganization, the functions and responsibilities of OR are far more precisely and narrowly defined than those of the National Institute of Education had been. GAO's presentation would be substantially clearer and more meaningful if the report used the agency designation NIE for the period covered by this study, 1980 to 1985. In addition, the present tense should not be used when speaking of events that occurred during the period 1980 to 1985.

CHANGES IN PRIORITIES

GAO found "priorities shifted from new data collection to service-oriented activities such as dissemination, so much so that the availability of

Now page 2.

up-to-date information to disseminate to teachers and other practitioners may be threatened" (Executive Summary p.3). Although we acknowledge the issue as one deserving analysis, we think that the assertion made in the report is not well founded and should be placed in context. Throughout the report, GAO describes dissemination as a service activity, quite distinct from research activity. While this often can be the case, the relationship between research and the dissemination of research lies at the heart of our work in OERI. It should be recognized that a typical basic research report seldom is an effective mechanism for impact on education practice. It must often be re-interpreted and synthesized to permit effective use by teachers and others it is intended to benefit. In pre-NIE days, funded researchers tended to see their end products as reports or journal articles for other scholars. As a consequence, NIE received complaints from policymakers and practitioners that such reports were practically useless to them. The claim was made that researchers had an obligation to make their results intelligible to those concerned with immediate issues of education practice. With encouragement from the National Council on Educational Research, NIE instituted in 1980 a requirement that investigators indicate how they planned to address the dissemination function. Similar requirements were placed on the R&D Centers supported by NIE and, in particular, on regional laboratories, which have a special responsibility for dissemination. In many cases, such activities were already planned and being carried out, but now they became explicitly characterized as "dissemination." While it is true that greater emphasis has been placed on dissemination, we do not agree that this emphasis alone poses any threat to new information production.

Now page 83

GAO implies that changes in leadership necessarily result in changes in priorities (p.117). The single example cited by GAO is a unique event, and surely is not sufficient to prove GAO's point. In fact it is more correct to assert that despite changes in leadership, there has been a significant degree of consistency and continuity in research priorities. This consistency will be reinforced by the provisions of the FY 1987 reauthorizing legislation for OERI, which requires the Secretary to publish research priorities every two years.

Furthermore, as OERI budget levels declined over the years, funds were not available to permit significant changes in priorities since an increasing percentage of the OERI budget was being restricted by the Congress for institutional awards.

NEW DATA COLLECTION

GAO found that many areas are no longer being studied, at least with respect to federal support for new inquiry, and that they have not been replaced by other areas. Somewhat cryptically, the report states that "New data collection appears to be particularly out of step with areas identified by education experts as those in need of educational reform"

Now page 20

(p.19).

It should be noted that a significant portion of OERI-sponsored research is conducted by the national R&D Centers. In December 1985, awards were made for the establishment of ten R&D Centers. These awards were made following a nation-wide competition which had been preceded by an intensive two year planning effort characterized by involvement of

numerous and varied publics. As a result, the work of the Centers reflects many of the most important questions and issues in education today, particularly those pertinent to the current education reform movement in this country.

Now page 34.

Mention is made by GAO of a report prepared for the National Council on Educational Research (p.33). This report identifies "the most critical areas" for research (e.g. improved teacher preparation, strengthened curriculum in math, science, etc.). GAO asserts in its draft report that "there were few awards for new data collection on these topics in 1985". While this may be true for the period covered by the GAO study, in April 1987, OERI announced its intention to sponsor four Mini-Centers and invited applications. Applications were invited for new Mini-Centers focusing on learning and teaching in selected content areas: (1) elementary education; (2) mathematics; (3) literature; and (4) science. They will represent a much needed coordinated effort to examine teaching and learning in some of the academic subjects that comprise the core school curriculum.

OERI also has been more creative in using its declining resources to address critical problem areas. For example:

- For the past several years, OERI has supported activities of an Urban Superintendents' Network. This year the Network is advising OERI on the preparation of a publication on school dropouts that will focus on programs, policies, and practices

that Network members have found to be effective in dealing with "students at risk";

- An intramural research project, currently underway in OR, examines the effects of high poverty schools on the pupils attending them. The project looks at issues related to school climate, school policies, and school resources so as to understand more precisely what makes a difference in improving educational opportunities for the poorest students; and

- OERI's FY 1987 research grants on reading and literacy are supporting studies of adult literacy and reading achievement of students from low-socioeconomic backgrounds.

DECLINE IN SUPPORT FOR INDIVIDUAL RESEARCHERS

Now page 20

A shift from support for individual researchers to support for laboratories and centers in the Office of Research is cited in the draft report (p.19). It should be recognized that over the years the Congress has directed ever larger portions of the OERI budget toward awards to institutions (e.g., R&D Centers, regional educational laboratories, NAEP, etc.). For example, under congressional directive, 47% of NIE's FY 1981 funds were awarded to the 17 regional educational laboratories and the R&D centers. In FY 1987, these same institutions received 61% of OERI's total appropriation and all OERI institutional awards accounted for 79%. As a consequence of congressional action, there has

been a steady decline in the amount of flexibility OERI has had to make awards to various types of "information producers."

Despite scarce resources, however, OERI already had set aside a portion of its budget for a field initiated grants competition in FY 1986. The Field Initiated Studies Program of the Office of Research was designed to generate proposals from individual researchers on topics of importance to education improvement. As a result of that competition, ten grant awards were made for an FY 1986 total of $724,248. Subsequently, in reauthorizing OERI in FY 1987, the Congress mandated a minimum annual funding level of of $500,000 for field initiated grants. Currently, applications are being invited for a FY 1987 Field Initiated Studies Program.

Also in FY 1986, the OERI Fellows Program was established to further stimulate interest among individual researchers and scholars in education issues and topics. Seven researchers, scholars, and practitioners spent up to one year in OERI conducting independent research on topics ranging from student financial aid to school productivity. Applications are now being accepted for the FY 1987 Fellows Program. We expect that three to five individuals will receive OERI fellowships.

CENTER FOR EDUCATION STATISTICS

Secretary Bennett's continuing interest and commitment to repairing the national data base on education is a matter of public record. For the second consecutive year, the Department has requested a substantial increase in the CES annual appropriation. Congress denied that request

in FY 1987. In FY 1988, the budget request for CES represents a 53% increase.

In response to questions about the timeliness, quality, and relevance of Center for Education Statistics' (CES) data, the Department has :

(1) undertaken the sweeping "redesign" project mentioned in the report;

(2) supported work of the State Education Assessment Center also mentioned in the report;

(3) organized the Study Group on National Assessment which reported in March 1987 with dramatic recommendations for the future of the National Assessment of Education Progress (NAEP);

(4) provided significant additional staff resources; and

(5) proposed, as part of the Administration's legislative amendments for the Education Consolidation and Improvement Act, authority to create a new Cooperative Education Statistics System that will establish joint Federal/State efforts to improve the quality of education statistics.

(6) made public, for the first time, a schedule of publications for the fiscal year. Of the 94 publications scheduled for

release during the first six months of FY 1987, 90 have been released, and five others scheduled for later release also have been published. This exceeds the total number of publications released in all of FY 1986.

While it will take a great deal of effort and time, as well as more favorable congressional action on our request for additional resources, we believe that the course we have embarked upon will lead to data that are timely, reliable, and comparable across States and localities--and responsive to the criticisms found in the GAO report.

Elementary/Secondary Data Collection

See page 45.

GAO acknowledges on p. 55 of the draft report that data on elementary and secondary education are gathered from several distinct surveys. However, we are concerned that the narrative in this section of the

See comment 2.

report appears to confuse Common Core Data (CCD) with CES' entire elementary and secondary data collection system. CCD actually is just one of several parts of the whole. The redesign effort looked at the full array of elementary/secondary data collected through CCD, NAEP, longitudinal studies, and the Public and Private School Surveys. Several statements in the report imply, incorrectly, that (1) CCD was the primary elementary/secondary data system and (2) that it was the appropriate mechanism for collecting a variety of data.

CCD was and will continue to be the component of the elementary/secondary data system through which basic universe data are obtained for use

primarily as sampling frames for surveys. In addition, essential core data that are needed from every State are and will be collected--enrollments, diplomas, staff and fiscal data. However, CCD has not been and will not be the component through which data on educational processes and outcomes are obtained.

INCREASED USE OF CONTRACTS

Now page 38

We are particularly concerned about the implication made in the draft report that the use of contracts rather than grants is "more likely to constrain inquiry" (p.40). The report states:

> "In terms of the implications for educational information, typically contracts involve greater specification of questions to be investigated and study design than grants, and thus are more likely to constrain inquiry. Also products of contracts typically are reviewed by the funding agency before release while products of grants typically are required after release."

OERI uses many procurement methods to accomplish its work. For example, grant awards were made to the R&D Centers while the regional laboratories are working under contracts. Typically, contracts are used when OERI wants to (1) ensure that the substance of the work being procured is clearly articulated and (2) provide for an appropriate level of accountability.

As a consequence of OERI's External Advice and Peer Review Policy, the establishment of priorities as well as the identification of research

questions and topics are accomplished with the involvement and advice of researchers, practitioners, and policymakers external to OERI. However prescriptive its procurements may appear, OERI work scopes are frequently shaped with the advice and counsel of outside experts. Additionally, when OERI issues a request for proposals (RFP), work scopes usually contain an invitation for alternative approaches. Rather than constrain inquiry, OERI is steadfast in its attempts to foster creativity and invite alternate strategies and fresh ideas.

OFFICE OF PLANNING, BUDGET, AND EVALUATION

CHANGES SINCE 1985

The GAO draft report looks at OPBE activities from 1973-1985, with a focus on 1980-1985. During this period, although OPBE has been the central evaluation office of the Department (and previously the Office of Education in DHEW), program offices have conducted many evaluation studies. The resulting information has often gone to the Congress and is a significant component of the evaluation information available to it.

Since 1985, important changes also have been made by Secretary Bennett in the Department's evaluation program. The Office of Planning, Budget, and Evaluation (OPBE) has a redefined role. It is still the central evaluation office, but also coordinates planning and implementation of evaluation studies throughout the Department.

Department-wide procedures for planning and coordinating evaluation studies were established in August 1986. Under these procedures, OPBE's responsibility for evaluation activities in the Department were consistent with the Secretary's statement of July 2, 1985 on reorganizing OERI.

The objectives of OPBE's collaborative efforts with program offices conducting evaluations are as follows:

- Ensuring that evaluation studies address key policy issues;
- Ensuring high methodological quality in studies; and
- Improving the dissemination of policy-relevant findings and their implications.

Results of the first year's activities under those procedures are encouraging. OPBE now has a central inventory of ongoing evaluation studies. There is also a fiscal year 1987 evaluation plan for each program area, representing consensus between OPBE and program staffs on priority issues, methodology, cost, funding sources, and timelines.

OPBE staff are reviewing draft work statements and draft study reports to help ensure high quality of analysis and reporting. OPBE has completed a summary report on evaluation activities actually implemented in FY 1987. OPBE also has issued guidance for the FY 1988 cycle of evaluation planning and coordination.

The condition of evaluation information in the Department is significantly different in mid-fiscal year 1987 from that of 1985 and preceding years.

As the procedures for planning and coordination of evaluation studies become more firmly established, they will further improve the quality of evaluation information available to the Congress.

CORRECTIONS IN NUMBERS

See comment 3.

Many numbers and percentages given for contracted evaluations should be changed. For example, the "79 percent decline" is too high. The GAO numbers do not take into account task orders to support contractors, which are often for small-scale studies. Furthermore, in calculating dollar amounts, the Annual Evaluation Report for the year after the year reported on should be used (e.g., the FY 1983 AER has the best available numbers for FY 1982). This is primarily because of the former 15-month availability of Title I/Chapter I funds. Best available numbers for OPBE obligations, FY 1980 - 1985, are as follows:

FY 1980 - $17.6 million
1981 - 16.8
1982 - 9.1
1983 - 10.9
1984 - 12.7
1985 - 9.4

Reasons for Declines in Numbers

See comment 4.

There was unquestionably a decline in the number and size of OPBE evaluation studies from 1980 to 1985. These important factors contributed to the decline:

- Many categorical programs (e.g., library support) were candidates in Administration proposals for block-grant consolidation or elimination.

- Some congressional criticism in the 1970's focused on the costs of large-scale evaluations. Other criticism said that evaluation results did not clearly show whether programs "were working or not working." The decline in numbers and costs of studies was, in part, a response to the criticism.

- The decline in OPBE's studies of ECIA Title I/Chapter 1 resulted largely from the congressional mandate to OERI for a large-scale multi-year study of compensatory education. Furthermore, Title I/Chapter 1 was itself a candidate for block-grant consolidation in the early 1980's.

CONFUSION OF TERMS

See comment 5.

There is frequent confusion throughout the report between "awards" and "activities." They are not synonyms. "Awards" refers to new contract or contract modifications, including task orders. An ongoing "activity" may not involve an "award" in any given fiscal year. The confusion of words makes the numbers misleading (e.g., pages 31-32).

Now pages 31-33.

See comment 6.

ADDITIONAL COMMENTS

More specific comments and, in many instances, corrections to the text are included on the following pages. In most cases, we have provided the page numbers of the report to which the comment is relevant.

The following are additional GAO comments on the May 15, 1987, Department of Education letter.

GAO Comments

1. The Department of Education noted that much of our analysis pertained to units that were in operation prior to the current organization of OERI. In the draft, we acknowledged the historical context but referred to units by their current names. The department suggested that for clarity and accuracy we refer to units by the names that were used during the period of our review. We concur and have changed the report accordingly.

2. The department expressed some concern that readers may think that the Common Core of Data is the only data that CES collects for elementary and secondary education, although in our discussion, we noted that it is one part of the elementary and secondary education data collection system. We chose our example because it represents one of several general ways of gathering data. We did not state that it was a primary mechanism, nor did we state that it is an appropriate mechanism for collecting a variety of data. We have made several minor changes to remind readers that administrative records represent one of several ways in which data can be gathered.

3. The department stated that our estimate of the decline in evaluation funds was too large because of the procedures we used to derive yearly funding levels. In determining funding levels for OPBE contracts, we used the procedures the department described in its comments. We limited our analysis to contract activities, because those were the only evaluation funds documented in the annual evaluation report. Time did not permit our verifying the updated figures provided by the department, so we have not included them. However, the department's numbers do not appreciably alter our principal findings.

4. We agree that there were many reasons for the observed declines in evaluation activity. The department's are likely explanations. We offered others in Federal Evaluation: Fewer Units, Reduced Resource, Different Studies From 1980, GAO/PEMD-97-9 (Washington, D.C.: January 1987)—namely, shifts in emphasis toward management-oriented studies, internal evaluations, and low-cost studies prepared primarily for top agency officials. The data in our report did not permit us to assess the relative importance of each reason.

5. The department correctly noted that "awards" and "activities" are not synonyms. We were limited to using available documentation in constructing our data bases for analyzing changes in activities and awards over time, but we have attempted to clarify this distinction.

6. The pages of additional comments from the department have not been reproduced in this appendix. However, where appropriate, we considered and used its specific comments and corrections in preparing this report.

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